# Ukraine 2022 Transport





















A holistic and complete story of the achievements of the Ukrainian transport system can only be told after the war. Yet, as the Russian invasion nears one year, it is important to pause and take stock of the wars impacts on the Ukrainian transport system and its various developments.

This timeline was put together by an interested observer who has glued together updates and accounts from news outlets, social media, Telegram and – as far as possible – exchanges with people on ground in Ukraine. In this respect, real developments and assessments may also differ, different emphases may be placed, and nuances may be unclear. Please do not hesitate to contact us with any comments.

With a bird's eye view, the Ukrainian response has been:

- Highly agile,
- Highly orientated towards concrete problem solving,
- A close linkage of public actors with a wide range of private supporters and aid organisations,
- With high interest to modernize transport systems and supporting infrastructure

The achievements of the Ukrainian transport workers from the train drivers to planning offices in city administrations to construction sites cannot be overestimated. Looking ahead, in 2023, the focus will be undoubtedly on reconstruction and integration with the European transport system.

Central to achieving this are:

- Development of investment pipelines based on integrated multi-modal planning on the national, regional and local level
- Integration into comprehensive green recovery approaches
- Alignment with the goal of decarbonizing transport based on 2 pillars: mobility transition and energy transition in transport (mainly electrification)
- Material aid to transport operators to secure short-term operationality
- Additional short- and medium term capacity expansion towards Western European logistics networks (inter alia to facilitate im- and export of agricultural products)

# February

## 24th

Russia invades Ukraine, attacking people, cities, and infrastructure across the country.

Ukrainian airspace closes, all ports close. Ukraine International Airlines suspends service. Kyiv metro opens as an air shelter with free access for citizens. Uber suspends operations while Bolt and Uklon continue to operate.

Ukrainian Railways (Ukrzaliznytsia, UZ) starts a massive evacuation of citizens from the Eastern regions. In the first days, up to 6,000 people are transported aboard single trains. Trains are running "under the radar" with little advance notice of departures and other measures to avoid detection.

Immediate mobilization of trucks and other equipment to facilitate the flow of aid.

### 25th

Two railway workers wounded at Kupyansk railway station – until the end of November at least 277 railway workers have been killed on duty or in service for Ukrainian forces.

## 26th / 27th

AN-225 "Mriya" – the worlds' largest aircraft – is destroyed by the Russian army at Hostomel airport.



Evacuation from Darnytsia railway station (Source: CC BY-SA 4.0, www.wikipedia.org)



Destroyed AN-225 (Source: www.360war.in.ua Author panoramic photographer Dmytro Malyshev)

## **Volodymyr Shemayev**

Director of Office for International Projects Ukrainian Railways (UZ)



## What were your first thoughts in the morning of February 24th when you learned about the war, what did you do first?

My first thought – a full scale war has started. I woke up to dozens of messages on my phone. My family and I started assembling an emergency bag with needed documents, a first aid-kit, water etc. Then I went to the UZ Office. The nervous atmosphere was palpable , however UZ staff remained admirably calm and focused and acted according to the instructions of the management

## What was your biggest success in 2022, your biggest failure?

Success: The creation of a train stocked with medicine and medical professionals jointly administrated with the NGO Doctors without Borders. Since April 2022 we have remodified an 8-wagon train with its own oxygen concentrator and diesel generator that has to date evacuated more than 2,000 patients from the war hot-spots of Eastern Ukraine. Additionally, UZ has reprofiled nearly EUR 250 mln worth of loans with EBRD and EIB to support liquidity needs and execute emergency capex. Further, in October we established a UZ Office for International Projects.

Fail: It has taken a while to launch a donation campaign in Europe to support injured and killed UZ staff and their families. A similar campaign has not yet started in North America.

## Which development surprised you most, what didn't you expect?

The ability of UZ to restore in remarkable time several abandoned lines near border crossing points with the EU and Moldova. No one expected it. To add, UK PM Boris Johson pledged up to 10 mln pounds though the Network Rail to restore railway infrastructure in Ukraine.

#### What are your plans and priorities for 2023?

To expand our cooperation with International Finance Institutions, in particular with the World Bank. Also, to increase joint cooperation with our partners in Poland, Slovakia, Hungary, Romania, and DG Move to apply for the CEF program on border crossing points development. We will also work closely with the Ministry of Infrastructure to develop a post-war reconstruction plan. The project related to standard gauge (1435 mm) proliferation into Ukraine will be a high priority too.

Wartime conditions significantly affect the planning, management, and provision of transport services for the population and enterprises on a national and local level.

The transport infrastructure of embattled Kharkiv, Chernihiv, Mariupol, Okhtyrka, Hostomel, Irpin, Bucha, and other cities, is considerably destroyed.

An example is the destruction of Kharkiv's tram depot after the Russian attacks. The destruction of national roads, tracks, transformer substations, transport facilities, etc. is substantial.

Cities in Central and Western Ukraine are actively providing shelter for Internally Displaced Peoples (IDPs), providing food and medical supplies and organizing transport. For example, the City of Lviv provided free city buses for refugees to transport them from the train station in Lviv to the Western border.

City budgets are falling sharply – as a result, many city council employees are sent on non-paid leave of one to two weeks and city employees' salaries are reduced. Due to frequent air-raid warnings, the normal operation of transport is disrupted. For example: Lviv reduced its daily services from approx. 650 units [trams, buses, trolleybuses] to approx. 300 units. In addition, diesel reserves are depleted and the commercial cost for fuel skyrockets, while spare parts and bus drivers are in short supply.

Many vehicles previously used for passenger transportation are redirected to serve the transport needs of the Armed Forces of Ukraine and the Territorial Defense Forces.

## 2nd

Kyiv metro shelters 15,000 people. During the Cold War, Kyiv metro stations were designed to shelter up to 100,000 people. Now thousands of Kyivians spend nights in stations – while the metro operates as a mode of transport during daytime.



People sheltering in metro station in Kyiv (Source: kmr.gov.ua - https://commons.wikimedia.org/wiki/)

## 4th

UZ operates evacuation trains from many places on a daily basis, e.g. from Kharkiv, Kryvyi Rih, Dnipro and Zaporizhia to Lviv and other places in Central and Western Ukraine.

In the first 10 days of war, UZ helped to evacuate 1.5 million people towards the West. Polish, German, Austrian, Czech, Slovak, Hungarian, Romanian Railways and many other partners offer free travel or other additional services for Ukrainian refugees to their final destinations. These journeys take many days – often under very difficult conditions.

In August, the number of evacuees transported by UZ stood at 3.8 million.



Refugees at railway staion in Lviv (Soruce: Andriy Bilyy)

## 11th

Deutsche Bahn (German Railways) launches the Railway-Bridge (Schienenbrücke) from Germany to Ukraine. This ensured that food, sanitary items and other required goods were able to directly reach Ukraine by trucks and trains.

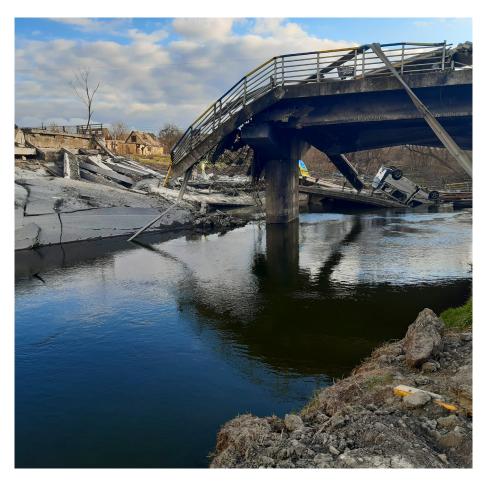
Ukrzaliznytsia for the period of March 1-11 shipped 87% less grain cargo than in the same period last year.

This makes it clear that the war against Ukraine has a very global dimension. Ukraine is the breadbasket of the world. And the war is disrupting the transport routes from the fields of Ukraine to the tables of the world: the ports of Ukraine are blocked and the connections to Western Europe are poor both by rail and by road.

A race is beginning to see how an estimated 22 million tonnes of grain from the 21' harvest can be transported out of Ukraine in the next few months not only to meet global demand, but also to free up Ukraine's warehouses to lay the groundwork for the next harvest. Backof-the-envelope calculations show that a single solution will not suffice – one will need a mix of strengthening the individual transport routes, establishing new connections and interim storage, and if necessary, reducing volumes by processing locally. The unblocking of the Black Sea ports to transport large volumes remains key to solving this problem.

## 15th

By early March, damages to transport infrastructure were estimated at 10 billion USD. As of mid-March, approx. 230 pieces of infrastructure were damaged or destroyed.



Destroyed bridge in Irpin (Source: CC BY-SA 4.0, https://uk.wikipedia.org)

## 16th

**#irondiplomacy** starts: UZ facilitates the safe passage for the heads of government of Poland, Czechia, Slovenia to Kyiv and back. Due to the closure of the Ukrainian airspace, the railway has become a reliable way for politicians and celebrities to travel to Kyiv. Prominent passengers include e.g. Boris Johnson, Ursula von der Leyen, U2 and Angelina Jolie.

## 17th

2 million refugees have left Ukraine via the Polish border since the beginning of war.

## 21st

The destruction of Ukraine's transport infrastructure is considerable.

A prominent example is the railway bridge in Irpin, which was destroyed on the 21st of March. Ukraine went into repair mode with the first track being restored in May. The second track was restored in November 2022.

Across Ukraine, city authorities are actively working to provide public transport – acknowledging that a functioning transport system is key for a functioning economy and social life.

The maintenance of mobility has a high psychological effect on the population. A transport system that functions despite all adversities shows that life and society keeps moving, that basic services are running, that a certain regularity prevails and that the industriousness and vibrancy of the city, of a country – is unbroken, unbreakable. You can get from A to B.

The achievements of the Ukrainian transport workers, who are working under the most difficult conditions, are highly commendable.

## 22nd

In the early stages of the war, there is a shortage of drivers – many are joining the military/territorial defense. Therefore, drivers with a category B license are allowed to drive vehicles of category C, C1.

## 31st

## Buses (and trams) for Lviv (and many other cities)

Ukrainian cities need support in transport, either because vehicles and infrastructure have been destroyed or because there are higher needs due to the accommodation of IDPs. Lviv receives buses from Polish cities, other examples include Dresden and Bucha, Brno and Kharkiv. On an overarching level, many new town twinning agreements are being concluded and existing ones revived. The Association of German Transport Companies (VDV) has arranged 33+ buses for Ukraine together with German cities and transport companies.



Bomb attack on Saltivske tram depot (Source: mvs.gov.ua - https://upload.wikimedia.org)

## Interview

## Natalia Boyko

Adviser to the Prime Minister of Ukraine Denys Shmyhal on energy issues, Head of analytical and educational Center of Excellence in Government Relations, teacher in Kyiv School of Economics

#### What was the first thing you did on 24th February?

We woke up from the shelling. The day before, we already felt the tension "hanging" in the air. Not fear, but rather some incredible tension. "Wake up my love, the war has begun," – with these words my boyfriend woke me up. Actually, these words changed my world forever. As if time had changed its trajectory, the air compressed and there was a persistent feeling that we had become irrevocably different. WAR came to my peaceful, sleepy, quiet home, and it tore the eardrums with the roar of sirens... The war destroyed silence, supplanted peace and destroyed the sense of security.

## Which development surprised you most, what didn't you expect?

I am very proud that I am Ukrainian. You know, you cannot destroy a nation that transferred millions of Hryvnias to the army on the first day after the start of the invasion. We were united and supported one another, from the first minutes the phone was in hand. We showed strength. Of course, the front is held by the Armed Forces of Ukraine, volunteers, medics, State Emergency Service, volunteers, Ukrzaliznytsia, and the police. But the Ukrainians hold not only the front, but also a strong rear – they have kept mobile communication and the Internet, the entire banking system, post office, public transport, metro, energy supply, gas supply, food industry, all state bodies and institutions running. Millions of Ukrainians did not allow our state to be stopped. Legislative, executive, judicial – all branches of government are functioning, social institutions have become stronger, the voice of civil society is still loud and local authorities are a reliable support.

The hardest thing is to lose people... the hardest thing is to realize that they will no longer be around. Friends who went to the army, energy colleagues, people who will never call again after the occupation of their city by Russia... I will never get used to it. I probably didn't expect that we would get stronger so quickly. We will become tougher and so durable. Once, after driving some 20+ hours, I realized that, despite the permanent fatigue, the distances that became three times longer, all thoughts were about what incredible people live and work in Ukraine and for Ukraine. And also – we continue to laugh and joke... it's almost a miracle.

### What were your priorities in 2022?

Probably, work became the most important thing for me in 2022, the foundation that made me move and be an effective cog in the system. On one of the working days, I went to our (Ukrgaz-vydobuvannya) drilling rig in the de-occupied territory – in the liberated Kharkiv Oblast, you can breathe so freely. Real professional heroism, priceless dedication to their work, courage and patriotism are shown by energy workers, dispatchers, engineers,



## Interview

mechanics, master technologists, drillers, and machinists. Each of them contributes to ensuring energy security, each brings warmth to Ukrainian homes. And so many stories can be told only after the victory... Power engineers are currently working in superhuman conditions – this is a true example of service to one's country.

Currently, the priority is very simple: we have entered the most difficult winter in the history of Ukraine. It is extremely important that foreign partners and our international friends constantly keep their finger on the pulse of the situation in Ukraine and provide powerful support. It is vital for us, without exaggeration.

#### What are your plans/expectations for 2023?

Russia cynically and methodically destroys not only residential areas and hospitals, but also especially critical energy infrastructure. Believe me, maintaining system control after such attacks is a superpower. Attacks are carried out on various objects throughout the country. Ukrainians are currently saving electricity as much as possible, helping to reduce the load on the power system. Russia wants to "extinguish" us, but it does not understand that our hot hearts cannot be extinguished by turning off the lights... Ukraine is fighting. The plans for 2023 are to celebrate our victory, a great one, together with my younger brother, who is currently fighting in the Donetsk direction.



# April

## 1st

UZ and Urkposhta join forces to deliver mail via rail. Rail transport is considered faster and safer due to numerous checkpoints on roads and unsafe road conditions.

## 6th

## Attack on Kramatorsk railway stations kills 60 people.

Russian attacks on Ukrainian transport infrastructure increases. This continues to have a strong impact on the performance of transport services and systems. Attacks also include the bridge over the Dnister estuary, the Beskid tunnel and an UZ repair workshop in Kyiv.

## 21st

Ukrainian President Volodymyr Zelenskyy issues Law No. 266 "Питання Національної ради з відновлення України від наслідків війни // Regulations on the National Council for the Restoration of Ukraine from the Consequences of The War" which can be seen as the starting signal for reconstruction efforts. Transport and infrastructure are prominently mentioned as the first element of the reconstruction agenda.

Reconstruction starts immediately, especially in the liberated areas in the North-East.

## 26th

Kyiv restores 5 trolleybus lines.

## 27th

Export of grain through the port of Constanta/ Romania picks up: First panamax is loaded with Ukrainian corn.

Many calculations are made, e.g. how many trucks or rail wagons would be needed to transport Ukrainian grains via Western Europe to world markets, how much capacity would be needed to be add at border crossings. Each calculation reveals yet another bottleneck and cost implications: It is assumed that the costs on rail/land are approx. 3x as high as maritime transport.

Observers agree that there is a) no single solution (but a package of measures will be needed) and b) that the de-blocking of Black Sea ports is key to deliver Ukrainian grain to world markets.



Chaplyne Railway Station Attack (Source: By armyinform.com.ua https://armyinform.com.ua/ CC BY 4.0)



Repair of trolleybus catenary in Chernihiv (Source: Screenshot from: https://www.youtube.com)

## Andriy Moskalenko

Vice Mayor of Lviv



#### What was the first thing you did on 24th February?

As per protocol, I have certain obligations as the deputy mayor in such situations. Therefore, when full-scale war began on this day, February 24, I arrived before 6 in the morning to work at the city council. We had a meeting at the mayor's office, where the main points were evacuation and handling the influx of people from the east that we expected, security, and the maintenance of critical infrastructure.

## Which development surprised you most, what didn't you expect?

It is very inspiring to see how people quickly and efficiently organized themselves. Since March, the whole country has become volunteers, that help at all levels and continue to pay taxes too. For a long time, there were queues to sign up as military servicemen, that is to say, people actively wanted to defend their country. Startups were born and new technologies like drones were implemented. An example is bionic prostheses, that had originated in Kyiv and later moved to Lviv. It was included in TIME's 100 top-best innovations.

We were selected as the youth capital of Europe 2025. Initially, it was an initiative purely from the city of Lviv, but in the process we changed the communication: we will represent all the cities of Ukraine, all the youth of Ukraine! We now have the opportunity to communicate from all possible sources and tell the whole world what we are facing.

#### What were your priorities in 2022?

The strategic priority is victory. At the operational level, we have several priorities: the running of the city and its infrastructure, assisting the military and assisting those internally displaced from war-struck cities. The enemy wants to stop us from working on long term goals, but it is important for us to continue to do so, and that is why we adopted the vision of a climate-neutral city in the summer to work on strategic plans for the future.

#### What are your plans/expectations for 2023?

The most important thing is victory! Winter will pose a serious challenge – these few cold and difficult months. Much has changed since the beginning of the full-scale war, and it has changed irrevocably. Now, when planning construction, we must always take shelters in consideration. 2023 is another year of struggle, and it comes at an extremely high price. But this will also be a year of realizations: many businesses have moved to Lviv. We must fight and win on different fronts!

# May

## 5th

As a result of night shelling of Mykolaiv, the trolley catenary is damaged. Buses are rerouted. Specialists of Municipal enterprise "Mykolaivelectrotrans" are working on the restoration of the network.

## 9th

First train with Ukrainian grain reaches Austria, but an estimated 25 million tons of grain are blocked in Ukrainian warehouses.

## 12th

European Commission sets out an action plan to establish ,Solidarity Lanes' to ensure Ukraine can export grain. Commissioner for Transport Adina Vălean said: "20 million tonnes of grains have to leave Ukraine in less than three months using the EU infrastructure. This is a gigantesque challenge, so it is essential to coordinate and optimize the logistic chains, put in place new routes, and avoid, as much as possible, the bottlenecks." Transport thrives on team play and cooperation: this is especially important in times of crisis. With Médecins Sans Frontières (MSF), UZ has put two medical evacuation trains on rail that is evacuating patients to hospitals that have a greater capacity to provide treatment, mostly those in the Western parts of Ukraine and beyond.

The fuel supply has worsened due to the bombing of the Krementchuk refinery and prices regulations (no attractive market price) at the beginning of the war: With the failure of the refinery as well as the continued blockade of the Black Sea seaports, Ukraine is almost entirely dependent on imports from Western Europe.

## 10th

Ukrzaliznytsia establishes a system of connections from Ukraine to Germany with a transfer in the Polish city Przemysl.



Visit of the Ukrainian delegation to the International Transport Forum in Leipzig (Source: https://www.flickr.com/photos/)

## 13th

Workers in Chernihiv are repairing the war-damaged trolleybus system under very difficult conditions. In Mykolaiv, tram and trolleybus chauffeurs are handed out bulletproof vests for personal protection.

## 18th

Ukrainian delegation, led by Minister of Infrastructure O. Kubrakov, at International Transport Forum in Leipzig, to discuss support and cooperation.

## 24th

Despite active warfare, Ukrainian cities continue to modernize public transport and to develop urban mobility. Kyiv gets new trams; Lviv completes cycle tracks and designs modern streets; a new trolleybus is locally produced in Vinnytsia; Odesa opens a new 30 km tram route – all of these are great examples of the robustness of the transport sector.

## June

## 5th

Intensive technical and political background work takes place to facilitate grain exports. High political focus – led by the UN – is on deblocking Ukraine's Black Sea ports.

At the same time, exports via the Danube ports are growing. The high demand leads to:

- Lack of inland vessels
- High costs for storage, transport
- Co-ordination problems between rail, transshipment, provision of ships, etc. (an attempt is being made to remedy this situation by means of a dispatching system)
- Congestion of Sulina Canal

The Czech Republic hands over two temporary bridges to Ukraine, which are used to ensure the passage of civilian transport after emergency situations.

Ukraine continues to surprise: Ukrzaliznytsia introduces cinema for children in trains. Kyiv children's railway is another example – it provides not only fun on weekends, but also encourages young girls and boys to discover a profession in the field of railways and transport in general. Great investments into the future.

## 3rd

First container train with sunflower oil travels from Ukraine to Klaipeda/Lithuania.

## 9th

Starlink gets a license to operate in Ukraine, Starlink terminals are soon working on trains. The full Starlink story will be told after the war.

## 13th

In May, Ukraine exported 800 thousand tons of grain by rail. There is a heavy

debate on capacities and solutions: An increasing number of proposals on how to process, store and transport grain is observed.

The issue of risk assumption is intensively discussed, as it is unclear whether and how alternative solutions will be profitable in the long term (if Black Sea ports are reactivated).

## 24th

New transport links with neighboring countries: Numerous activities are underway to restore transport/rail links to Moldova, Romania and Poland. Many of these links were abandoned in the 1990s or 2000s.

#### Plans for the future

High-flying and down-to-earth – plans, plans, plans: AN-225 reconstruction, new Hostomel airport, 1520mm railway line through Poland, 1435mm rail network in Ukraine, vegetable oil pipeline to Gdansk etc. In the course of the very dynamic development of the situation and the many demands (as well as the many hopes) on road, rail and waterways, a large number of proposals are being presented – however, not all of them are realistic. Any post-war recovery process will carefully need to apply enhanced duediligence based on realistic demand data and cost estimates and to keep in mind the long-term perspectives of green and climate-friendly development.

## 29th

#### Transport liberalization with EU

Ukraine and the European Union sign a special agreement on transport liberalization, eliminating the need for Ukrainian carriers to obtain appropriate permits for bilateral and transit traffic to EU countries. The agreement between the EU and Ukraine also provides for the recognition of Ukrainian driving licenses and certificates of professional competence.

## Interview

## Sigrid Nikutta

Member of the Management Board of Deutsche Bahn AG



## What were your first thoughts in the morning of February 24th when you learned about the war?

Just as quickly as the war broke out in Ukraine, DB Cargo was asked if they could transport relief goods. My initial thought was: "Of course we can! That's exactly our job!" Five days later, the rail bridge was up and running.

## How did the process of establishment of the solidarity lanes start?

The speed and flexibility with which we built the rail bridge for relief goods was a brilliant success for DB Cargo. The rail bridge was also used to transport grain in the other direction a few weeks later. Besides some initial hick-ups, the whole effort was an overall outstanding achievement by our colleagues at DB Cargo.

## Which development surprised you most, what didn't you expect?

I was very touched by the enormous willingness of the German public to donate to relief efforts. So far, over 1,000 containers of relief goods have made their way to Ukraine.

### What are your plans and priorities for 2023?

We will support our partners at the Ukrainian Railways in their efforts to rebuild their infrastructure to European standards. A joint memorandum of understanding already exists, and now the first projects are being developed.



Source: Deutsche Bahn

# July

## 1st

Rays of hope: Despite the war, UZ continues to modernize city trains in Kyiv region.

## 4-5th

### Lugano Conference takes place

In regard to transport, the document "Materials of the "Construction, urban planning, modernization of cities and regions" working group" identifies major challenges and action points. For transport infrastructure, measures are proposed in the areas of:

- Border infrastructure
- Railway
- Ports and inland water transport
- Intermodal transport
- Aviation

largely with the aim of improving the logistical connection to the West, reducing transport challenges in the country and improving the quality of infrastructure/ services. The Recovery Plan is extremely comprehensive and financially ambitious – active support will be needed both in terms of ensuring sustainability in (urban) transport and mobilizing funds (domestic and external).

A green recovery of the transport sector will go beyond individual technologies or solutions: A deep transformation requires a holistic approach that includes planning and policy approaches, institutional amendments and changes in legislation, financing, standards, and technical recommendations.

For a more detailed overview, please refer to our Eight Building Blocks (Annex 1).

## 11th

The opening of the Bystroye Canal in the aftermath of the reconquest of Snake Island allows ships to sail directly to the

Ukrainian ports on the Danube, bypassing Romanian territory.

Danube ports have become a major shipping point: In June, 1.5 million tons of cargo passed through Ukrainian ports on the Danube.



# July

## 21st

Missile attack against public transport stop in Kharkiv – 1 person killed, 17 wounded. In order to protect waiting passengers, Kharkiv and other cities like Mykolaiv started building shelters at public transport stops.

## 22nd

#### Grain agreement concluded

With the Istanbul Agreement on the Black Sea Grain Initiative, an important step was taken to allow grain exports via the Ukrainian Black Sea ports of Odesa, Pivdennyi and Chornomorsk, releasing millions of tons of grain to the world market.

The economic value of this port's opening and the associated export opportunities are put at USD 1 billion per month – this was very important as it provided Ukrainian farmers with income opportunities and thus funds for the next sowing season. The first ship left the port of Odesa on August 1st with 26,000 tons of maize bound for Lebanon (capacity equivalent to about 1300 trucks or 400 railway wagons).

Since the agreement only covers agricultural goods, the question of intensifying Ukraine's logistical ties to the West remains relevant. The EU Commission has included Ukraine's transport routes in the network of European transport corridors (TEN-T) to improve Ukraine's western connection.

Ukrzaliznytsia transports 10 million tons of cargo in July. Domestic transportation, exports, and imports have increased. Only transit has not increased, as it is practically non-existent. The transportation of most of Ukrainian key cargoes has increased: grain, ore, coal, ferrous metals, diesel, building materials, etc.



Signing Ceremony of the Black Sea Grain Initiative in Istanbul, in the presence of Turkish President Recep Tayyip Erdogan, UN secretary-general Antonio Guterres, Ukrainian Infrastructure Minister Oleksandr Kubrakov and Russian Defense Minister Sergei Shoigu in 2022. Umut Çolak - Source: Voice of America (Source: Public Domain, https://uk.wikipedia.org)



Public transport shelter (illustration) (Source: https://www.facebook.com/photo)

## Interview

## **Alain Baron**

European Commission, DG Move



## What were your first thoughts in the morning of February 24th when you learned about the war?

I felt a deep sadness to see that after more than 75 years of peace in Europe that there is a major war on the continent. I was thinking about the friends and colleagues who I know personally in Ukraine.

## How did the process of establishment of the solidarity lanes start?

It was a collective exercise at the European Commission. The problem of transport of grain quickly proved to be a pressing problem. The first idea was to set up dedicated lanes, similar to the green lanes that were introducing during the COVID pandemic, to speed up border crossing of freight and passengers and keep up connectivity between Ukraine and the EU. However, it soon became clear that current overall infrastructure capacity was far below the needs. For example, traffic in the Polish-UA border had increased by 16 times, 5 times at the Romanian border. The current infrastructure was simply lacking capacity to meet this increased traffic - therefore a more comprehensive approach, called Solidarity Lanes, was launched by the Commission on May 12th. From the start of Solidarity Lanes till 1st Dec 18 Mio tons of cereals have been transported. Despite the raising importance of the Black Sea route in August the share of goods transport between Solidarity Lanes and the Black Sea ports stood at 55% vs. 45% last November.

## Which development surprised you most, what didn't you expect?

The first thing that surprised me positively was the resilience of Ukraine, its people and its transport system. They coped with the events in a really professional manner, the capacity to transport goods or repair damaged infrastructure was almost intact.

On the other side, challenges remain to overcome administrative constraints. We realized that there was a lot of paperwork and little digitalization in trying to implement solutions. It had taken much time to ensure or convince that member states lift unnecessary controls – e.g. veterinary controls for cereals.

#### What are your plans and priorities for 2023?

In 2022, the focus was on quick solutions, on getting things done. In 2023, we will enter the second phase – focusing on investments. We are working on a potential co-financing of urgent projects to facilitate the transport of goods. On November 11th, European Commission has announced funding of up to 1 billion EUR for urgent projects in the context of Solidarity Lanes. 250 million Euro will be available in the form of grants while the rest will be loans from development banks (EIB, EBRD, World Bank). More important than the funds itself is the identification, sound preparation and quick implementation of projects.

# August

## 1st

Rays of hope: new design norms for bike infrastructure come into force allowing a better and safer separation from parking cars.

## What does the tram do in the event of an air alert?

This question has been discussed in Ukrainian cities since the beginning of the war: Does the tram or bus stop and the passengers look for the nearest shelter? Or does it continue on its way?

During the Second World War, the rule in German cities was: In the trams, the shelters closest to the stops were indicated on a notice board. The drivers were instructed to head for the nearest public shelter and to visit it together with the passengers. The vehicles were to be parked (darkened) in such a way that bridges and tunnels were not blocked and that it was possible for other road users and rescue forces to pass through on the roads. Of course, it was also important to park the vehicles in a decentralized manner during the air raid period in order to avoid risks when bombing depots.

On August 1st, Kyiv administration decides to do the same, also clarifying that passengers don't have to pay the fare a second time once service resumes.

## 2nd

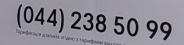
Russians attack an oil seed terminal in Mykolaiv, bringing up questions around the feasibility of grain initiative.

## 5th

On the morning of August 5, the first caravan with Ukrainian agricultural products consisting of three bulk carriers left the ports of Odessa and Chornomorsk as part of the "grain initiative".

### 

Для укриття під час повітряної тривоги у нічні години телефонуйте:



Information about shelter in Kyiv metro (Source: Maryna Denyschenko)



Minister of Infrastructure O. Kubrakov at ship carrying grain and foodstuffs from Ukraine (Source: International Maritime Organization, https://www.flickr.com)

# August / September

### 9th

#### Improvements in border management

Huge queues at border crossing points of up to 60km at UA-PL border hamper the flow of trade. Queues are caused by required (and sometimes outdated) procedures, lack of staff, limited traffic organization, etc. – but in particular by the sheer increase in volumes; both sides are working to improve the situation. It is reported that at times, the arguments become more heated and suspicions arise. However, during the next months the declining queues indicate that selected measures are working, including the massive expansion of road border crossings.

From time to time, immediate concrete short-term challenges come up, such as the need for standard-gauge diesel locomotives for shunting services across the border as well as truck/container scanners for faster border clearance.

Starting from December, the electronic queue management system "eCherga"

will be implemented. This system allows drivers to register in an electronic queue and receive information about the estimated time of crossing the border at any such location as well as authorities to monitor the situation.

## 17th

The Polish ETC Terminal, located in Chelm, 25 km from the border with Ukraine, builds the first of two hangars for the temporary storage of grain, which will later be sent in containers to Spain. Ukraine has purchased almost all disposable crop storage systems (grain tubes) currently available on the world market.

Most of the means for storing the crop were purchased privately by Ukrainian agribusiness.

Continued attacks against cities in Eastern Ukraine, which are also hitting public transport infrastructures.

### **22nd**

Reconstructed railway line to Moldova opens.

## 24th

### Rostock port receives first consignment of grain from Ukraine

Many ports and other transport operators position themselves in a new market environment. In general, a strong revival of freight transport, infrastructure development as well as intended investment projects in relation to Ukraine and Eastern Europe is visible – the transport geographic area is being reorganized, including among others: New freight trains between Gdansk and Istanbul, increased freight volumes via Baltic sea ports, expansion of rail shunting yards at border posts etc.

25 people, including 3 railway workers, are killed in a missile attack at Chapline station on **Ukraine's Independence Day**.

## 12th

Early hopes : The Minister of Infrastructure of Ukraine, Oleksandr Kubrakov, states that technically it takes up to two weeks to resume the operation of airports in Ukraine – the Danylo Halytskyi Airport in Lviv could be the first one. But in practice, this will be possible only if there are security guarantees.

Trade between Ukraine and the European Union resumes. In August, exports to the EU stand at 90% of the level of exports recorded in August 2021. And in the three quarters of 2022, Ukraine exported to the EU, despite the war, even several percent more than in the I-III quarters of 2021.

# September

## 13th

In the de-occupied areas of the Kharkiv region, transport infrastructure is being restored.

## 15th

Ukrainian Railways delivered 3.6 million parcels in 6 months.

## 16th

Social payments of UAH 52 million have been issued in onboard UZ evacuation trains.

### Loss and Damages // Green Recovery

The report "Ukraine Rapid Damage and Needs Assessment" by World Bank, Government of Ukraine, European Commission indicates damages (US\$29.9 billion), losses (US\$26.1 billion), and needs (US\$73.8 billion) in Ukraine's transport sector.

Correctly, the document refers to suspected under-reporting in the area of urban transport and corresponding challenges with regard to future programming and financing: "In addition, the national government's financial role in urban public transport services was never systemically defined." The risk here is that investments in transport will be channelled to the national level rather than the municipal level.

At the institutional level, the document makes relevant and comprehensible recommendations: "There are four priority areas where the Ministry of Infrastructure is expected to focus attention in preparing reconstruction:

- 1. Project identification, prioritization, sequencing, and commercial strategy
- 2. Implementation structures for individual subsectors
- 3. Mobilizing technical project preparation
- 4. Financial strategy and the roles of internati onal funds, sovereign funding, and user charging in specific subsectors."

These priorities offer a good starting point for cooperation with international partners, especially in order to be able to anchor the topic of green recovery structurally.

Balancing immediate needs, budgetary requirements, long-term investments (and especially green recovery approaches) and (macro-)economic constraints will be a major challenge of reconstruction, also with regard to the transport sector (national, rural and urban).

# September

## 16th-22nd

### European Mobility Week

Despite the ongoing war, 5 Ukrainian cities take part in the European Mobility Week. In Lviv, participants are able to enjoy a variety of activities to promote sustainable urban mobility in the city: thematic city tours, presentations, discussions, quizzes, and workshop opportunities about tactical urbanism.

#### More:

www.transformative-mobility.org/ news/2022-european-mobility-weekin-lviv

2022 European Mobility Week in Lviv | Transformative Urban Mobility Initiative (TUMI) (transformative-mobility.org)

## 30th

In Dnipro, air strikes damage and destroy almost 100 buses – in order to help, Kyiv and Vinnitsa donate buses for Dnipro. In the wake of the destruction of the electricity infrastructure, outages and restrictions on electric transport are reported.

# October

## 10th

Due to massive shelling and destruction of electricity infrastructure, public transport comes temporarily to halt in many cities including in Kyiv, Odesa, Lviv, Cherkasy.

In some cities, diesel powered buses replace trams and trolleybuses.

## 14th

Transport connections to de-occupied territories are quickly restored.

Leading from the front, both Infrastructure Minister Kubrakov and UZ CEO Kamyshin are often seen in the field in the early days of de-occupation. The speedy clean-up of road infrastructure, construction of temporary bridges as well as the restoration of train services helps to get essential supplies and services to citizens.

Transport volumes of UZ increased as compared to September.

## 20th

Again a heavy strike against Ukrainian energy infrastructure, also impacting public transport.

> Ukrainian railways increased amount of transported cargo during October (thousand tons)



Source: UZ



Damaged energy infrastructure (Source: National Police of Ukraine -CC BY 4.0, https://commons.wikimedia.org)

# October

## 24th

UZ receives 35 heavy generators to prepare main railway stations for blackouts. In November, the concept of "Points of Indestructability" is introduced in Ukraine. More than 4,000 shelter points are offering space for warming up, food and beverages, charging of mobile devices and related services. Railway stations are part of this effort.

## 25th

Lviv starts construction of first transport hub at intersection Bandera/Chuprynky st. Transport hubs allow for easy transfer of passengers from one public transport mode to another as well as shared mobility offers.

8.9 million tons of agricultural products have already been exported within the "grain corridor".





CEO UZ Oleksandr Kamyshin is leading the restoration of railways services in newly liberated areas (@AKamyshin) / Twitter)



People re-charging their mobility phones at Kherson train station (Source: Oleksandr Kamyshin (@AKamyshin) / Twitter)



Planned transport hub in Lviv (Source: Institute for Spatial Development Lviv https://www.facebook.com/spatialdevelopment)

## Interview

## **Orest Oleskiv**

Head of Transport Office Lviv City Council



## What were your first thoughts in the morning of February 24th when you learned about the war?

I went to my office, as usual, at 8am, where our team tried to understand what to expect for Lviv, we discussed, and communicated the situation with transport companies. At the beginning, many drivers didn't appear at work, since they wanted to protect their family or had been mobilized in the war or due to other issues. Only less than 50% of the fleet was in operation. We had to organize our resources to ensure that the main public transport routes remained in operation.

## Which development surprised you most, what didn't you expect?

In the beginning of March, we organized a free transportation for people that came to Lviv by evacuation trains from all over Ukraine to the Polish border. It was a surprise how dedicated our transport companies and drivers were to help the people to get to border, since the city could only cover the fuel costs. In the beginning, it was of great help to receive support from our Polish colleagues. We had not expected them to deliver so many buses to Lviv, it served to be extremely helpful. We sent many of those buses to the army instead of vehicles from municipal fleet and this allowed us to maintain transportation service in the city. Due to the rapid increase of fuel prices and lack of fuel in April-July, trams and trolleybuses saved the situation and helped to maintain public transportation. However, everything changed in autumn as major electric infrastructure was destroyed and we had to reduce the electricity consumption.

#### What were your priorities in 2022?

In 2022, we had initially planned to implement e-ticketing, optimize public transport networks and renew the city's cycling concept. Since the beginning of full-scale invasion of Russia to Ukraine the main priority was to keep the whole transport system running and prevent its collapse and to quickly reacts to new challenges. Only since July we started to work on achieving some of the goals that we planned in the beginning, but not in the scale that we had planned.

#### What are your plans and priorities for 2023?

It will be an exceedingly difficult year. Even after the victory, we will not have much money in our budget for the development, as our economy is damaged significantly. Due to the lack of resources, it is very important for us to set the right priorities and to try to continue the development, using cost efficient methods.

# November

### 1st

The Russian missile attacks have a significant impact on Ukraine's electricity supply. This also affects the operation of trams, trolleybuses and metros. How are the cities reacting?

- In order to stabilise the power grid (and also due to safety concerns), the operation of public electric trans port is often initially suspended, as is currently the case in Kharkiv and resumes later.
- Often, transport resumes with less vehicles (and consequently at longer intervals) and with limited operating times (e.g. only until 8pm. or from 5-10am and 4-8pm only), as in Poltava and Zhytomyr.
- In some cities, electric transport routes are replaced or supplemented by diesel bus services, as in Kyiv.

Ukrainian transport and energy workers are doing a commendable great job to resume electric transport as quickly as possible and ensure safe transport.

## 3rd

UZ fan shop opens at Kyiv Pass – Despite all its tragedy, war is also a source of new ideas and approaches.

The war is not only being waged online and hybrid, but also leading to a multitude of new #hashtags, memes and other social media innovations.

## 11th

Help on local level continues: Trams from Czechia make their first journey in Kharkiv.

## 14th

The European Commission, Czechia, Poland, Romania, Slovakia, Republic of Moldova, Ukraine, the European Investment Bank, the European Bank for Reconstruction and Development, and the World Bank Group mobilize 1 billion euro for Solidarity Lanes to increase global food security and provide a lifeline for Ukraine's economy.

## 15th

The first train since the start of the war arrives in Mykolaiv.

## 17th

Grain Agreement extended for 120 days

In the run up to the extension of the grain agreement was eventful: Part of the discussions centered on the procedures to be applied as well as the extension of the scope of the agreement to other groups of goods and participating ports as well as the potential of Russian fertiliser/ammonia exports.

After the Ukrainian actions in the port of Sevastopol, Russia withdrew briefly from the agreement but Türkyie seemed to take a much more active role in control of the Black Sea and as a guarantor power – a special moment in this sense was the departure of this convoy on 31.10. under Turkish protection and without Russia's active participation in the grain agreement.



Oleksandr Kamyshin, Twitter: @AKamyshin

# November

## 24th

Worst day for railways (according to UZ CEO O.Kamyshin): The continued attacks on energy infrastructure also impact the performance of Ukrainian Railways. As a result, more than 40% of trains were delayed.

Therefore, support should continue to be provided with regard to the performance of the Ukrainian transport system and in particular the railways, ad-hoc support requirements (material, financial resources, etc) may be needed – preparatory planning should be initiated for this.

Support options for short-term replacement / emergency repair / etc. of strategically important objects (transformers, bridges, tunnels) should also be considered here, as well as measures for the safety management of critical infrastructure.

The electricity shortage as well as the ongoing attacks on Ukrainian cities severely affect (public) transport in cities. Public transport comes to a halt (In Kyiv, for example, public transport had to stop for in total 122 hours between August and October), infrastructure is further destroyed, purchasing power decreases and affects the profitability of businesses.

Against all odds, however, public transport systems in cities have not collapsed, which is a sign of resilience and a crisismanagement competence of local managers.

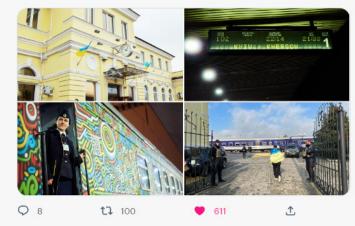
## 29th

**#BikesForUkraine:** 300 bicycles, collected by the European Commission within the international campaign #BikesForUkraine, were delivered to Kyiv. The bikes will be handed over to volunteers delivering humanitarian aid, as well as to the staff of critical services in the cities and communities of Ukraine affected by the Russian military aggression. The bikes were received and unloaded in Kyiv by volunteers of U-Cycle (NGO "Association of Kyiv Cyclists"), which is one of the initiators and co-coordinators of the #BikesForUkraine campaign.



#### Oleksandr Kubrakov @OlKubrakov · Nov 19

The Victory train arrived today in liberated **#Kherson**. The first passengers were able to return home. This is an incredible feeling! Grateful to all railway workers @Ukrzaliznytsia @AKamyshin for restoring the rail service in such a short period



Oleksandr Kubrakov on Twitter: "The Victory train arrived today in liberated #Kherson. The first passengers were able to return home. This is an incredible feeling! Grateful to all railway workers @Ukrzaliznytsia @AKamyshin for restoring the rail service in such a short period https://t.co/Bolj01NgWj" / Twitter



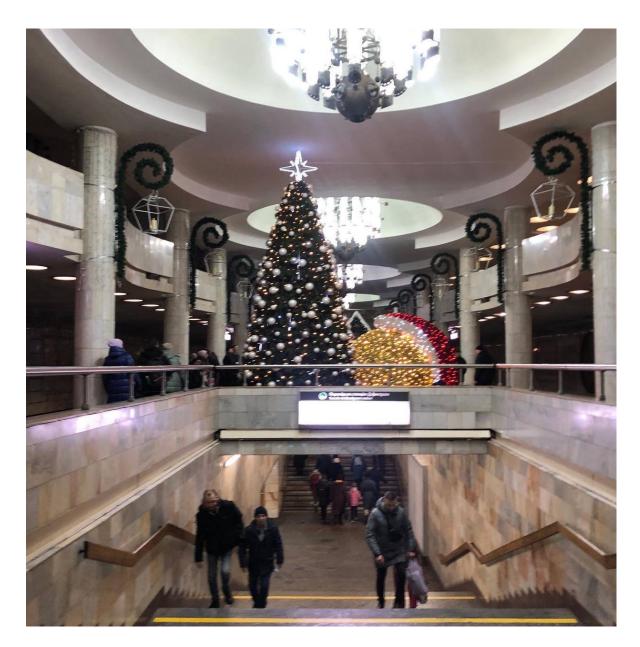
## December

## 7th

The New Year tree in Kharkiv is set up at the metro station "University" (and not on the main square). This is not only a reminder of the situation in many Ukrainian cities – but also a metaphorical picture: The transport system moves people from A to B, it facilitates access as well social and economic life. But it also provides shelter and offers space reflection and recovery.

## 16th

After heavy strikes, Kyiv metro stations operate as shelters; the movement of trains is suspended due to damage to the power system and emergency power outages.



New Year tree at Kharkiv metro station (Source: Dmytro Zaiets)

# Annex 1

## Anchoring green recovery of urban mobility in Ukraine: Eight building blocks

Reconstruction is already in full swing in many parts of Ukraine. At the same time, the debate around the nature of that reconstruction, particularly how to design a green recovery, is growing. While the green recovery debate often focuses on individual technologies or solutions, a deep transformation requires a holistic approach that includes planning and policy approaches, institutional amendments and changes in legislation, financing, standards, and technical recommendations.

Against this backdrop, our paper outlines eight essential building blocks for a green recovery in urban mobility.

The eight building blocks interconnect and reinforce each other as they form the foundation for a sustainable development of urban mobility. In a sense, they shape the institutional and administrative framework required for the further development of urban mobility in Ukraine.

### Discover our eight building blocks:

https://www.transformative-mobility.org /news/green-recovery-ukraine

| 1. Visions and goals  | Urban mobility is a topic of national interest in Ukraine, as almost 70 % of people live in cities. Cities are centres of economic growth;   |
|---|--|
|   | but also facing negative impacts of mobility, such as high emissions.  |
|   | A NUMP process will help to develop a joint vision for Ukrainian cities.   |
| 2. Responsibilities and   | Urban mobility is a topic of national interest in Ukraine, as almost 70 % of   |
| planning processes  | people live in cities. Cities are centres of economic growth; but also facing negative impacts of mobility, such as high emissions.  |
|   | A NUMP process will help to develop a joint vision for Ukrainian cities.   |
| 3. Public transport alliances   | Trolley-buses, buses, trams and metros are the backbone of urban mobility Strengthen public transport by improving institutional   |
|   | framework and establishing clear structures (e.g. transit alliances)   |
| 4. Innovation campaign  | Foster innovation through "Sustainable Ukraine – sustainable Mobility'<br>(Стійка Україна – стійка мобільність)" programme (working title) with<br>500 pilot projects in at least 50 Ukrainian cities.   |
| 5. Funding  | Modern urban mobility needs money, for construction, operation and main-<br>tenance - we propose a coherent mix of user fees, taxes (on fossil fuels),<br>subsidies, complementary revenues and international support. A National<br>Fund for Sustainable Mobility can help to consolidate national resources. |
| 6. Design standards   | Develop top-notch technical standards for planning and operation<br>of safe, inclusive and sustainable transport, including revision of DBN.   |
| <ol> <li>Sustainable transport<br/>industries as building<br/>block of the new<br/>Ukrainian economy</li> </ol> | Develop an Urban Mobility Industry & Investment Strategy as building block a new Ukrainian economy.  |
| 8. Ongoing reform and<br>adaptation: regulatory<br>reform – upgrading skills<br>international networking        | Establish a comprehensive reform program for urban mobility planning and implementation.   |

## **Our Work**

On behalf of BMZ and other partners, GIZ supports Ukrainian cities to improve mobility conditions – in particular for pedestrians, cyclists and public transport users.

**Example**: TUMIVolt supports the City of Lviv in developing an integrated E-Mobility Plan to support the city's vision of reducing the air and noise pollution

https://www.transformative-mobility.org/ campaigns/lviv-pilot

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#### Title page

From left top-down to right top-down (1) Destroyed AN-225 (Source: www.360war.in.ua Author panoramic photographer Dmytro Malyshev)

(2) Chaplyne Railway Station Attack (Source: By armyinform. com.ua - https://armyinform.com.ua/2022/08/25/obstril-chaplyne-25-zagyblyh-z-nyh-dvoye-dity/, CC BY 4.0, https://commons.wikimedia.org/w/index.php?curid=123066852)

(3) Train Station (Source: Lviv Andriy Bilyy)

(4) Damaged energy infrastructure (Source: National Police of Ukraine - CC BY 4.0, https://commons.wikimedia.org)

(5) Alexander Kamyshin, Twitter: @AKamyshin

(6) People sheltering in metro station in Kyiv (Source: kmr.gov.ua - https://commons.wikimedia.org/wiki/

(7) Destroyed bridge in Irpin (Source: CC BY-SA 4.0, https://uk.wikipedia.org)

(8) Bomb attack on Saltivske tram depot (Source: mvs.gov. ua - https://upload.wikimedia.org)

## Sources

### February

#### 24th

Россия начала открытую войну против Украины (обновляется) — Центр транспортних стратегій (cfts.org.ua)

Russia started a war against Ukraine – DW – 24.02.2022

В метро Киева людей пускают бесплатно — Центр транспортних стратегій (cfts.org.ua) Большинство украинских портов закрыто — Центр транспортних стратегій (cfts.org.ua) Ukrzaliznytsia will perform evacuation flights from the eastern regions of Ukraine — Center for Transport Strategies (cfts.org. ua) Uber service stopped working in Ukraine — Center for Transport Strategies (cfts.org.ua)

Ukrzaliznytsia organized an evacuation train with a record number of cars — Center for Transport Strategies (cfts.org.ua)

Залізничний вокзал Львова з перших днів війни приймав 100 тисяч людей на добу, - Камишін — Центр транспортних стратегій (cfts.org.ua)

UIA is temporarily suspending passenger traffic – UIA (Germany) (flyuia.com)

Ukraine has established transportation of technical assistance trucks from Western partners, - MIU — Center for Transport Strategies (cfts.org.ua)

Налагоджено перевезення вантажівками технічної допомоги від західних партнерів (24.02.22 15:25) « Транспорт | Бізнес.Цензор.НЕТ (censor.net)

https://cfts.org.ua/news/2022/02/28/v\_kieve\_zapuskayut\_kommunalnyy\_transport\_metro\_budet\_kursirovat\_rezhe\_chem\_ obychno\_69314

### 25th

Ukrzaliznytsia informed about additional evacuation trains — Center for Transport Strategies (cfts.org.ua)

Vinnytsia.info | Ukrzaliznytsia reported additional evacuation trains from Vinnytsia and other cities of Ukraine (vinnitsa.info)

Kherson wine for Johnson and cheesecakes for Blinken. How world leaders travel to Kyiv by Ukrzaliznytsia - BBC News Ukraine

Iron heroes, evacuation trains, losses due to the war — the head of Ukrzaliznytsia (suspilne.media)

### 26/27th

Российские оккупанты уничтожили "Мрию" - крупнейший транспортный самолет в мире — Центр транспортних стратегій (cfts.org.ua)

The military told the details of the destruction of "Mriya" at the airport of Hostomel — Center for Transport Strategies (cfts. org.ua)

#### February / March

In Kiev, they launch public transport, - the metro will run less often than usual - The Center for Transport Strategies (cfts. org.ua) https://t.co/jBsOa1i7hN

В Киеве открывают продуктовые магазины и запускают транспорт, но просят не выходить без надобности — DSnews.ua

### March

#### 2nd

В метро Киева сейчас укрывается 15 тысяч человек — Центр транспортних стратегій (cfts.org.ua)

Residents of Kiev have been hiding in the metro for a month  $(aa. \mbox{com}.tr)$ 

15,000 people are now hiding from Russian bombs in the Kiev metro | Ukrainska Pravda

### 4th

УЗ назначила дополнительные поезда из Харькова, Кривого Рога, Днепра и Запорожья на запад страны — Центр транспортних стратегій (cfts.org.ua)

Новини Харкова: вивезли понад 600 тис. осіб | Новини на Gazeta.ua

Залізничний вокзал Львова з перших днів війни приймав 100 тисяч людей на добу, - Камишін — Центр транспортних стратегій (cfts.org.ua)

3 початку війни Укрзалізниця евакуювала 3,8 мільйона людей (ukrinform.ua)

#### 8th

Russia caused damage to the transport infrastructure of Ukraine by \$ 10 billion - Center for Transport Strategies (cfts.org.ua)

МВД: С начала полномасштабной войны россияне уничтожили 3,5 тыс. объектов инфраструктуры Украины | Украинская правда (pravda.com.ua)

#### 11th

Deutsche Bahn запускает "железнодорожный мост" в Украину — Центр транспортних стратегій (cfts.org.ua)

Schienenbrücke in die Ukraine startet | DB Cargo

Ukrzaliznytsia reduced grain transportation by 78% in March — Center for Transport Strategies (cfts.org.ua)

Перевезення зернових через війну впали на 87%, – "Укрзалізниця" (14.03.22 17:08) « Транспорт | Бізнес.Цензор. НЕТ (censor.net)

#### 16th

УЗ обеспечила перевозку делегации Европейского совета — Центр транспортних стратегій (cfts.org.ua)

"Укрзалізниця" перевезла одним поїздом очільників МЗС 7 країн— Центр транспортних стратегій (cfts.org.ua)

How world leaders travel to Kyiv, what they eat and how they behave / The New Voice of Ukraine (nv.ua)

#### 17th

Из Украины в Польшу с начала войны выехало почти 2 млн человек — Центр транспортних стратегій (cfts.org.ua)

#### 21st

Взорван железнодорожный мост между Ирпенем и Киевом (фото) — Центр транспортних стратегій (cfts.org.ua)

Железнодорожный мост из Ирпеня в Киев скоро восстановят - дата | Сегодня (segodnya.ua)

В Ірпені відновили другий залізничний міст, зруйнований у ході бойових дій (фото) — Центр транспортних стратегій (cfts.org.ua)

УЗ запускает в Киеве электрички между левым и правым берегом — Центр транспортних стратегій (cfts.org.ua)

КГГА обнародовала обновленное с 24 марта расписание движения наземного транспорта в Киеве | Новости Эспрессо (espreso.tv) В Украине водителей с удостоверением категории В допустили к управлению транспортом категории С, С1 — Центр транспортних стратегій (cfts.org.ua)

Government has allowed to drive trucks up to 7.5 tons for drivers with category B license | Cabinet of Ministers of Ukraine (kmu.gov.ua)

#### 31st

The first deliveries of Ukrainian corn by rail went to the EU – Center for Transport Strategies (cfts.org.ua)

Пропускну спроможність терміналів на західному кордоні України планують збільшити до 5 млн. тонн зерна на місяць - logist.today

The first deliveries of Ukrainian corn by rail went to the EU – Center for Transport Strategies (cfts.org.ua)

Пропускну спроможність терміналів на західному кордоні України планують збільшити до 5 млн. тонн зерна на місяць - logist.today

Львов получил от польских городов помощь в виде 25 низкопольных автобусов (фото) — Центр транспортних стратегій (cfts.org.ua)

Чеське Брно передасть Харкову трамваї та тролейбуси - портал новин LB.ua

Муніципалітет Дрездена подарував Бучі три міські автобуси (фото) — Центр транспортних стратегій (cfts.org.ua)

Deutsche Bahn передав Києву автобуси, але вони досі простоюють — Центр транспортних стратегій (cfts.org.ua)

Spendenaktion: Busse für Kiew | VDV - Die Verkehrsunternehmen

#### April

#### 1st

Впервые за 20 лет в Украине возобновили перевозки почты по железной дороге (фото) — Центр транспортних стратегій (cfts.org.ua) Ukrainian Railway returns postal wagons on tracks | IntermodalNews EU

#### 6th

Россия нанесла повторный ракетный удар по мосту через Днестровский лиман — Центр транспортних стратегій (cfts. org.ua)

Россия за час обстреляла 5 ж/д станций в Украине — Центр транспортних стратегій (cfts.org.ua)

Росія обстріляла п'ять залізничних станцій в центрі та на заході України | Економічна правда (epravda.com.ua)

Kramatorsk railway station attack - Wikipedia

#### 21st

https://www.president.gov.ua/documents/2662022-42225

#### 26th

В Киеве возобновили работу пяти троллейбусных маршрутов — Центр транспортних стратегій (cfts.org.ua)

Украинское зерно начали экспортировать через Румынию — Центр транспортних стратегій (cfts.org.ua)

Експорт зерна через Румунію: у Констанці завантажили перше судно з кукурудзою з України - новини України, Продовольство - LIGA.net

Україна продаватиме зерно через Румунію — знайдено ще один шлях для експорту українського врожаю / HB (nv.ua)

В порту Констанца погружен первый Рапатах с украинским экспортным зерном (фото) — Центр транспортних стратегій (cfts.org.ua)

#### 27th

Украинское зерно начали экспортировать через Румынию — Центр транспортних стратегій (cfts.org.ua)

Експорт зерна через Румунію: у Констанці завантажили перше судно з кукурудзою з України - новини України, Продовольство - LIGA.net

Україна продаватиме зерно через Румунію — знайдено ще один шлях для експорту українського врожаю / HB (nv.ua)

В порту Констанца погружен первый Рапатах с украинским экспортным зерном (фото) — Центр транспортних стратегій (cfts.org.ua)

### Мау

### 5th

В Николаеве изменили троллейбусные маршруты из-за повреждения контактной сети — Центр транспортних стратегій (cfts.org.ua)

#### 9th

Украина не может экспортировать 25 млн тонн зерна из-за блокады портов — Центр транспортних стратегій (cfts.org. ua)

"Grüner Korridor": Erster Getreide-Zug aus Ukraine eingetroffen (meinbezirk.at)

#### 10th

https://cfts.org.ua/news/2022/05/10/uz\_naladila\_sistemu\_poezdok\_iz\_ukrainy\_v\_germaniyu\_s\_peresadkoy\_v\_polskom\_peremyshle\_70096

Visit Ukraine - Ukrzaliznytsia has established a system of convenient trips to Germany with a transfer in Przemysl

#### 12th

Медицинские поезда УЗ вывезли с Донбасса порядка пятисот раненых мирных жителей (фото) — Центр транспортних стратегій (cfts.org.ua)

In June, Ukrposhta paid UAH 11 million to passengers of evacuation trains from the East — Center for Transport Strategies (cfts.org.ua)

Медичними поїздами УЗ від початку їх курсування навесні евакуйовано 1500 українців — Центр транспортних стратегій (cfts.org.ua)

No mercy for civilians in Ukraine war | MSF

Рф нанесла еще 4 ракетных удара по Кременчугскому НПЗ — Центр транспортних стратегій (cfts.org.ua)

https://www.epravda.com.ua/publications/2022/04/29/686417/

#### 13th

https://youtube.com/watch?v=i3QWV1EnIC0

Водители троллейбусов и трамваев в Николаеве будут

работать на линиях в бронежилетах — Центр транспортних стратегій (cfts.org.ua)

#### 24th

Киев получил три новых трехсекционных трамвая "Татра-Юг" — Центр транспортних стратегій (cfts.org.ua)

У Львові випробовують тролейбус з автономним ходом (фото) — Центр транспортних стратегій (cfts.org.ua)

#### June

#### 1st

В портах Украины заблокировано 22 млн тонн зерна, -Зеленский — Центр транспортних стратегій (cfts.org.ua)

Україна працює з ООН стосовно деблокування портів, – Кулеба 01.06.2022 - UkrAgroConsult

Чехія передала Україні тимчасові мости, створені для забезпечення проїзду після надзвичайних ситуацій (фото) — Центр транспортних стратегій (cfts.org.ua)

Ukraine has received two temporary bridges for civilian transport from the Czech Republic - Militarnyi

У поїздах Інтерсіті+ знову запрацював дитячий кінотеатр | Новини Еспресо (espreso.tv)

#### 3rd

З України до Клайпеди відправили перший контейнерний поїзд з олією — Центр транспортних стратегій (cfts.org.ua)

Tank containers a reliable option for moving sunflower oil from Ukraine to Port of Klaipeda | IntermodalNews EU

#### 9th

Starlink отримав ліцензію оператора в Україні — Центр транспортних стратегій (cfts.org.ua)

By the end of the year, UZ trains will have Internet from Starlink, - Head of the State Service of Special Communication — Center for Transport Strategies (cfts.org.ua)

#### 13th

Україна експортувала залізницею 800 тис. тонн зернових у травні — Центр транспортних стратегій (cfts.org.ua) На кордонах України побудують тимчасові термінали для перевантаження зерна — Байден — Elevatorist.com

#### 24th

Україна та Молдова відновлять залізничне сполучення на ділянці Березино-Бессарабка — Центр транспортних стратегій (cfts.org.ua)

Ukraine and Moldova to Resume Railway Connection on Berezino-Bessarabka Section | European Pravda (eurointegration.com.ua)

"Антонов" планує створити в Гостомелі вантажний аеропорт-хаб з пасажирським терміналом — Центр транспортних стратегій (cfts.org.ua)

Близько 20 компаній запланували або будують зернові термінали на нових логістичних маршрутах — Центр транспортних стратегій (cfts.org.ua)

#### 29th

Україна та ЄС підпишуть спеціальну угоду про транспортну лібералізацію, - МІУ — Центр транспортних стратегій (cfts. org.ua)

Supporting Ukrainian exports and improving connections to the EU: EU strengthens cooperation with Ukraine and Moldova (europa.eu)

### July

#### 1st

"УКРЗАЛІЗНИЦЯ" МОДЕРНІЗУВАЛА ЩЕ ОДНУ ЕЛЕКТРИЧКУ ДЛЯ KYIV CITY EXPRESS (open4business. com.ua)

#### 4-5th

https://uploads-ssl.webflow.com/621f88db25fbf24758792dd8/ 62c6d255dff3f65c7b7e6539\_Construction%2C%20urban%20 planning%2C%20modernization%20of%20cities%20and%20 regions.pdf

https://cfts.org.ua/articles/z\_planu\_dlya\_lugano\_skilki\_milyardiv\_prosyat\_na\_vidnovlennya\_transportno\_infrastrukturi\_ukrani\_1912

#### 11th

Після звільнення Зміїного стало можливим використання

гирла Бистре на Дунаї — Центр транспортних стратегій (cfts.org.ua)

Експорт зерна з України — Гирлом Дунаю Бистре пройшли 16 суден / HB (nv.ua)

Проєкти із збільшення пропускної спроможності портів на Дунаї потребують 200 млн доларів інвестицій, - Кубраков — Центр транспортних стратегій (cfts.org.ua)

#### 21st

Російські військові завдали удару по зупинці громадського транспорту у Харкові (фото) — Центр транспортних стратегій (cfts.org.ua)

Андрій Райкович - Доброго ранку всій Україні! Останніми... | Facebook

У Харкові встановили перше залізобетонне укриття поряд з зупинкою громадського транспорту (фото, відео) — Центр транспортних стратегій (cfts.org.ua)

У Миколаєві встановлять 40 укриттів на зупинках громадського транспорту — Центр транспортних стратегій (cfts.org.ua)

#### 22nd

Вивезення зерна: Україна підпише договір із Туреччиною і ООН, а не з Росією – Подоляк (radiosvoboda.org)

Без подальшого розмінування: в ООН розповіли подробиці реалізації Стамбульської угоди — Центр транспортних стратегій (cfts.org.ua)

MIУ планує розпочати рух суден в рамках "зернового коридору" із портів України вже цього тижня — Центр транспортних стратегій (cfts.org.ua)

"Промінь надії" у Стамбулі: чим завершилися переговори щодо морського експорту українського зерна— Центр транспортних стратегій (cfts.org.ua)

Українське зерно планують вивозити через три морських порти - член делегації України у Стамбулі Умеров — Центр транспортних стратегій (cfts.org.ua)

Судно з українським зерном виходить із порту в понеділок вранці - новини України / НВ (nv.ua)

Страхування торговельних суден в окремих ділянках Чорного моря подорожчало до 20 разів з початку війни — Центр транспортних стратегій (cfts.org.ua)

#### 31st

У липні поточного року «Укрзалізниця» перевезла більше 10 млн тонн вантажів | (gol.ua)

#### August

#### 1st

В Україні велосипедні смуги відокремлюватимуть від парковок спеціальними бортами (фото) — Центр транспортних стратегій (cfts.org.ua)

In Kyiv, bike lanes will be separated from the car parking area by plastic curbs | Kyiv News

#### 2nd

Росіяни обстріляли олійний термінал в порту Миколаїв — Центр транспортних стратегій (cfts.org.ua)

#### 5th

Перший караван суден з українським зерном вийшов із портів Великої Одеси – міністр (radiosvoboda.org)

Перше судно з українським зерном прибуло в кінцевий пункт призначення — Центр транспортних стратегій (cfts. org.ua)

"Металургійний коридор" може приносити Україні 1 млрд доларів щомісяця. Але досягти цього лише дипломатією буде важко — Delo.ua

#### 9th

https://cfts.org.ua/news/2022/08/09/na\_punktakh\_propusku\_ na\_kordoni\_u\_lvivskiy\_oblasti\_zaprovadyat\_elektronnu\_chergu\_71412

Черги вагонів у напрямку прикордонних переходів суттєво скоротилися (railinsider.com.ua)

Українські локомотиви почали вести вантажні поїзди через Молдову — Центр транспортних стратегій (cfts.org.ua)

В жовтні на кордоні запрацює електронна черга для автотранспорту | City Trans UA

At the checkpoint "Yagodyn-Dorohusk" from December 12, "eCherga" for trucks will start working, - MIU — Center for Transport Strategies (cfts.org.ua)

#### 17th

На кордоні Польщі і України зводять ангари для тимчасового зберігання зерна, яке відправлятимуть до Іспанії — Центр транспортних стратегій (cfts.org.ua)

Ангари для тимчасового зберігання зерна почали зводити на кордоні Польщі та України (landlord.ua)

Україна скупила на світовому ринку майже всі одноразові зерносховища, - міністр — Центр транспортних стратегій (cfts.org.ua)

Польський термінал в Холмі подвоїв потужності перевалки зерна з України — Центр транспортних стратегій (cfts.org. ua)

У Харкові обстріляли трамвайне депо - війна в УкраїніОстанні новини та події в Україні та світі (comments. ua)

Tram Depot in Kharkiv Burns Following Russian Strikes (yahoo.com)

#### 22nd

Через залізничну ділянку Березине-Басарабяска планують перевозити 10 млн тонн вантажів на рік — Центр транспортних стратегій (cfts.org.ua)

Україна і Молдова відновили ділянку залізниці Березине-Басарабяска (railinsider.com.ua)

#### 24th

В німецький порт Росток прибув перший поїзд з українським зерном — Центр транспортних стратегій (cfts. org.ua)

Частка експорту зернових залізницею через західні переходи зросла до 30% — Центр транспортних стратегій (cfts.org.ua)

Since the beginning of the war, freight transportation of Ukrzaliznytsia has decreased by 65%, - Cabinet of Ministers —

Center for Transport Strategies (cfts.org.ua)

Metrans запустив залізничне сполучення між Гданськом і Стамбулом — Центр транспортних стратегій (cfts.org.ua)

"Дочка" "Литовських залізниць" запустила поїзд між Гданськом і найзахіднішим терміналом з широкою колією в ЄС — Центр транспортних стратегій (cfts.org.ua)

Україна та Польща побудують трубопровід для транспортування української олії в порт Гданськ — Центр транспортних стратегій (cfts.org.ua)

Один з найбільших стивідорів порту Клайпеда запропонував свої потужності під українське зерно — Центр транспортних стратегій (cfts.org.ua)

Меtrans запустив залізничне сполучення між Гданськом і Стамбулом — Центр транспортних стратегій (cfts.org.ua)

На прикордонному переході Ягодин-Дорогуськ хочуть ввести в експлуатацію додаткові колії 1520 мм — Центр транспортних стратегій (cfts.org.ua)

Українське Дунайське пароплавство запустило контейнерні перевезення (фото) — Центр транспортних стратегій (cfts. org.ua)

### September

#### 9th

Україна втратила через війну більше 9 млн тонн елеваторних потужностей, - KSE — Центр транспортних стратегій (cfts.org.ua)

Ukraine Rapid Damage and Needs Assessment (worldbank. org)

#### 12th

Lviv Airport Ready to Resume Operation - Kyiv Post - Ukraine's Global Voice

Ukrainian exports to the EU already exceed the pre-war level — Center for Transport Strategies (cfts.org.ua)

PKP LHS транспортував у серпні понад 1 млн т вантажів (railinsider.com.ua)

Черга з вантажівок на польському кордоні розтягнулася на 45 км — Центр транспортних стратегій (cfts.org.ua)

Черги на західних переходах України менше 19 тис. вагонів (railinsider.com.ua)

#### 13th

В деокупованих районах Харківщини починають відновлювати транспортну інфраструктуру (фото) — Центр транспортних стратегій (cfts.org.ua)

#### 15th

Укрпошта та Укрзалізниця доставили 2 мільйони посилок залізною поштою (ukrposhta.ua)

З квітня Укрпошта та Укрзалізниця доставили майже 3,6 мільйонів посилок «Залізною поштою» (ukrposhta.ua)

"Укрзалізниця" використовує вже 15 вагонів для перевезень пошти — Центр транспортних стратегій (cfts.org.ua)

#### 16th

В евакуаційних поїздах УЗ оформлено соціальні виплати на 52 млн грн — Центр транспортних стратегій (cfts.org.ua)

Укрзалізниця — За пів року медичні вагони перевезли 1800 людей (suspilne.media)

Президент затвердив угоду з ЄС про "транспортний безвіз" — Центр транспортних стратегій (cfts.org.ua)

#### 16-22nd

2022 European Mobility Week in Lviv | Transformative Urban Mobility Initiative (TUMI) (transformative-mobility.org)

#### 30th

У Дніпрі внаслідок нічної атаки "Іскандерами" знищено транспортне підприємство (фото) — Центр транспортних стратегій (cfts.org.ua)

Russian missile strike kills civilian destroying city bus depot in Dnipro late on Sep 29 - Euromaidan Press

#### October

#### 10th

Через російський обстріл у Львові зупинився електротранспорт — Центр транспортних стратегій (cfts. org.ua)

В Одесі обмежують рух електротранспорту | Одеський Кур'єр (uc.od.ua)

У Черкасах частково зупинять рух низки тролейбусних маршрутів — Центр транспортних стратегій (cfts.org.ua)

У Харкові після обстрілу зупинився весь електротранспорт, кількість поранених зросла до чотирьох (gordonua.com)

#### 14th

"Укрзалізниця" відновила залізничне сполучення з Краматорськом — Центр транспортних стратегій (cfts.org. ua)

Ukrzaliznytsia again travels to Kramatorsk — news of Ukraine (babel.ua)

### 19th

Уряд стимулюватиме створення спільних залізничних пунктів пропуску на кордоні з ЄС — Центр транспортних стратегій (cfts.org.ua)

У порту Ізмаїла майже завершили роботи з днопоглиблення – Новини інфраструктури – Логістика (gmk. center)

Сулінський канал переходить на цілодобовий режим роботи, - АМПУ — Центр транспортних стратегій (cfts.org. ua)

У транспортуванні зерна з України треба робити ставку на розвиток наземного шляху, - думка — Центр транспортних стратегій (cfts.org.ua)

В Києві на всіх автобусних маршрутах можна розрахуватися банківською карткою або гаджетом із NFC, -КМДА — Центр транспортних стратегій (cfts.org.ua)

На дорогах Києва створюють кільцеві розв'язки малого радіусу (фото) — Центр транспортних стратегій (cfts.org.ua)

Ukraine Transport Almanac 2022

#### 20th

У низці міст України обмежать рух електротранспорту через пошкодження росіянами енергомереж — Центр транспортних стратегій (cfts.org.ua)

Planned power outages begin in Kyiv to conserve energy | Ukrainska Pravda

#### 24th

УЗ отримала 35 потужних генераторів, що забезпечать безперебійну роботу найбільших вокзалів — Центр транспортних стратегій (cfts.org.ua)

#### 25th

У Львові стартували роботи зі створення транспортного хабу на перехресті вулиць Чупринки та Бандери — Центр транспортних стратегій (cfts.org.ua)

At the intersection of General Chuprynka and Stepan Bandera streets, a transport hub began to be equipped (video) — Lviv City Council (city-adm.lviv.ua)

В рамках "зернового коридору" вже експортовано 8,9 млн тонн агропродукції — Центр транспортних стратегій (cfts. org.ua)

У портах Великої Одеси майже не лишилося вільних ємностей для зернових | Новини (048.ua)

### November

#### 1st

У Києві всі тролейбуси на маршрутах замінять автобусами — Центр транспортних стратегій (cfts.org.ua)

1 листопада тролейбуси у Черкасах не вийдуть на лінії (cherkasy.city)

#### 3rd

"Укрзалізниця" відкрила свій перший офіційний мерч-шоп (фото) — Центр транспортних стратегій (cfts.org.ua)

Ердоган заявив про поновлення роботи Чорноморської зернової ініціативи вже сьогодні (interfax.com.ua)

Ukrzaliznytsia opened its first merch shop • Mezha.Media

#### 11th

У Харкові на маршрути вийшли перші трамваї з Чехії (фото) — Центр транспортних стратегій (cfts.org.ua)

Czech Trams to Run in Kharkiv (gwaramedia.com)

#### 14th

ЄС виділить 1 млрд євро для розвитку прикордонної інфраструктури для вивезення зерна з України — Центр транспортних стратегій (cfts.org.ua)

ЄС розглядає можливість прокладання євроколії через західні регіони України — Центр транспортних стратегій (cfts.org.ua)

1 billion euro mobilised for Solidarity Lanes (europa.eu)

#### 15th

Вперше з початку повномасштабної війни в Миколаїв прибув пасажирський поїзд (фото) — Центр транспортних стратегій (cfts.org.ua)

Passenger train from Kyiv arrives in Mykolaiv for first time since Feb 24 (ukrinform.net)

#### 17th

"Зерновий коридор" продовжить роботу 3 листопада, -Кубраков — Центр транспортних стратегій (cfts.org.ua)

"Зерновий коридор" продовжили на чотири місяці | Економічна правда (epravda.com.ua)

#### 1**9th**

Telegram: Contact @cftsua На Херсонщині почали зводити першу тимчасову переправу, - "Укравтодор" — Центр транспортних стратегій (cfts.org.ua)

We collect #BikesForUkraine (europa.eu)

#BikesForUkraine - U-Cycle U-Cycle

#### 24th

Камишін назвав найгірший день по виконанню графіку руху поїздів — Центр транспортних стратегій (cfts.org.ua)

Укрзалізниця скасувала низку приміських поїздів | День за днем (denzadnem.com.ua)

Locomotives of the Odessa railway were protected with armored plates to perform tasks in the combat zone (video) — Center for Transport Strategies (cfts.org.ua)

У Києві на 7 трамвайних маршрутах тимчасово працюватимуть автобуси — Центр транспортних стратегій (cfts.org.ua)

На низці ділянок у Києві відновили рух трамваїв (tvoemisto. tv)

Громадський транспорт Києва за 3 місяці простояв 122 години через повітряні тривоги — Центр транспортних стратегій (cfts.org.ua)