The future is still undecided: *Concept note for urban mobility reform program*

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This paper outlines a proposal for broad reform agenda for urban mobility in Ukraine. By supporting this reform agenda, Ukraine and its international partners can reduce the reliance on imported fossil fuels, reduce the number of people killed in accidents, improve quality of life and reduce costs for citizens, business and government.

In the **short term**, it helps:

- mitigating the effects of macro-economic shocks (e.g. shocks induced through rising prices)
- preparing local governments and transport companies for implementation of macro-economic reforms
- showing commitment by government and international partners for reform
- enabling highly visible measures (e.g. upgrading of public transport and of urban space) at short notice (i.e. summer 2014) .

The proposed reform agenda covers:

Issue	**Indicator**
Visions and goals	A National Urban Mobility Strategy has been adopted, together with an implementation programme.
Responsibilities and planning processes	Planning procedures are in line with international standards and facilitate adequate public consultation.
Public transport systems	The framework conditions for public transport have been improved and clear structures established.
Ongoing reform and adaptation: regulatory reform – upgrading skills – international networking	Comprehensive reform program for urban mobility planning and implementation is established
Innovation campaign - 100 pilot projects for shared learning	The **'Nasha Ukraina – nasha Mobilnist'** program ("Our Ukraine – Our mobility" (working title)) is established and is being implemented in 100 pilot projects in at least 50 Ukrainian cities.
Funding	The National Fund for Sustainable Mobility is established and is replenished from a levy amounting to 1 UAH/litre on petrol and diesel.
Design standards	The DBNs and relevant technical standards for planning and use of transport modes have been revised.

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[2] NB: This paper was compiled by a non-Ukrainian, whose knowledge of the country, the diversity of its mobility sector and the relevant stakeholders is inevitably incomplete. His understanding of some aspects is bound to be superficial, while other aspects remain obscure. The reader is therefore invited to draw the author's attention to any inaccuracies or hyperbole. The author is motivated by his unswerving commitment to mobility and support for pedestrians, cyclists and public transport. It is a matter of supreme indifference to him how long Lexus, Range Rover or Land Cruiser drivers remain gridlocked.

Preface

Ukraine is facing huge challenges, politically, economically, socially – this also applies to Ukraine's urban transport system. The rising popularity of the motor car has Ukraine's cities firmly in its grip. Congestion, accidents, lack of parking, air pollution, and overcrowded buses and trains blight the lives of Ukraine's urban dwellers and foreign visitors alike.

Let's assume that citizens, decision-makers and planners in Ukrainian cities wish to pursue the **goal of sustainable mobility according to the European definition**.

Let's assume **that we want to shape the future instead of paving over the past.**

What can be done, how, and by whom? Which policy course must be put in place, and which priorities should be set?

I. Develop visions and goals

The goals of and for mobility are as diverse as the Ukrainian cities themselves. The goals currently being defined for Ukrainian cities often involve, implicitly or explicitly, the expansion of the road area, increases in speed, and more rigorous separation of the various types of transport.

As a contrasting approach, a **paradigm shift** in the goals of mobility planning is currently under way at the international level. It is illustrated in Table 1 below (source: Banister 2008):

Table 1
Contrasting approaches to transport planning

The conventional approach—transport planning and engineering	An alternative approach—sustainable mobility
Physical dimensions	Social dimensions
Mobility	Accessibility
Traffic focus, particularly on the car	People focus, either in (or on) a vehicle or on foot
Large in scale	Local in scale
Street as a road	Street as a space
Motorised transport	All modes of transport often in a hierarchy with pedestrian and cyclist at the top and car users at the bottom
Forecasting traffic	Visioning on cities
Modelling approaches	Scenario development and modelling
Economic evaluation	Multicriteria analysis to take account of environmental and social concerns
Travel as a derived demand	Travel as a valued activity as well as a derived demand
Demand based	Management based
Speeding up traffic	Slowing movement down
Travel time minimisation	Reasonable travel times and travel time reliability
Segregation of people and traffic	Integration of people and traffic

Source: Adapted from Marshall (2001) (Table 9.2).

Table 1: Paradigm shift

These contrasting approaches clearly show how the focus of mobility planning is shifting to people and their needs. It is no longer about the free flow of traffic; it is about ensuring access to services, residential areas, work centres, leisure and cultural amenities, and managing mobility in a socially equitable, environmentally compatible way.

We therefore propose that a **national strategic development process** be initiated for sustainable urban mobility. This process should identify visions and goals for urban mobility planning, for developing and implementing policies and programmes, and for establishing benchmarks to measure progress. It will help Ukraine's cities to manage the paradigm shift described above and adapt it to local conditions.

A **national strategy for sustainable urban mobility** will:

- Analyse the problems,
- Identify barriers (institutional, regulatory, capacity-related)
- Identify priorities in the following areas: avoidance of unnecessary travel, modal shift to sustainable forms of mobility (walking, cycling, public transport), and improving the environmental, social and economic quality of the various means of transport
- Define stakeholders and steps in the implementation process, as well as possible sources of funding

The Ukrainian Ministry of Regional Development, Construction and Municipal Infrastructure, in cooperation with the Ministry of Infrastructure, can take the lead here and facilitate an exchange among cities. It is important to emphasise that **in line with the subsidiarity principle, the defined goals and visions for Ukrainian cities are recommendations only** and should not be regarded as prescriptive.

➔ **Key Performance Indicator (KPI):** A National Urban Mobility Strategy has been adopted, together with an implementation programme.

II. Reforming and strengthening responsibilities and planning processes, involving the public

In terms of **the policy and planning framework for mobility planning**, the merging of administrative bodies and the establishment of an appropriate hierarchical structure have a key role to play. Here, the creation of effective mobility departments which are responsible for all aspects of mobility planning in Ukrainian cities, and which also bear a high degree of responsibility for its outcomes, will be a major step forward. The terms of reference of these mobility departments will comprise:

- Planning of mobility, transport infrastructure and transport services
- Traffic management
- Construction of transport infrastructure
- Quality monitoring.

In particular, this means that the departments responsible for planning and delivering mobility services will also be in a position to influence and manage the underlying causes of mobility trends, e.g. land use, development of commercial and industrial sites, suburbanisation trends, etc.

In order to improve planning processes, the use of traffic planning methodologies and models must be mandatory, based on regular and systematic surveys of mobility behaviour and monitoring of actual traffic volumes. Data collection and management, and the use of these data for the purpose of forecasting mobility behaviour and analysing the impacts of social trends, of investment projects in the mobility sector and of policy-making, are a key step towards rational mobility planning. It must be borne in mind, however, that models and plans only identify potential impacts. Definition of the starting conditions, the assumptions made and the evaluation of results are a matter for planners and decision-makers in close consultation with the general public.

The **participation of the public** – particularly institutional stakeholders such as transport service providers and specific user groups (e.g. cyclists, local public transport users and

people with disabilities) in planning processes will enhance the quality of planning and ultimately increase 'ownership'.

At the national level, a lead ministry must be designated with responsibility for urban mobility issues.

➔ **KPI:** Planning procedures are in line with international standards and facilitate adequate public consultation.

III. Strengthening and integrating local public transport systems

Many of Ukraine's municipal public transport companies (Elektrotrans, Pastrans) are in a parlous financial condition and their fleets, depots and technical systems are in a very bad state of repair.
The companies' poor financial status is caused by a mix of factors – a precarious revenue situation (low percentage of season tickets, ticket distribution problems, drivers taking payment for travel without issuing tickets, etc.), the high proportion of passengers entitled to free travel, unreliable payment of equalisation contributions by the state, and the general expectation that public transport prices will remain low, even though local public transport is supposed to be profitable.

On a positive note, **the attitude towards local public transport is generally positive,** but there is a lack of clarity over resourcing and the methodologies to be applied.

This poor state of affairs is not only the result of years of underinvestment in vehicles and infrastructure. It is also the outcome of a **lack of clear visions and guidelines** for public transport provision. Questions about the level of service that should be provided, and at what price, remain unanswered, including the following:

- Development standards (speed, frequency of service, location of stops, catchment areas, timetabling)
- Connection standards (journey times between stops, e.g. reliable journey times, frequency of connections, number of changes needed when travelling to the city centre)
- Quality standards (fitting-out of stops and vehicles, infrastructure, passenger information, disabled access to vehicles and infrastructure)
- Desired level of cost coverage based on realistic full costing
- Fares and pricing structure.

A further element is the **often confusing allocation of responsibilities in Ukrainian cities**. It is frequently unclear who defines the general objectives for local public transport, who defines the quality of services, who is responsible for service provision and pricing, and who monitors and pays for the services provided.

Internationally, a **three-tier structure** has proved its worth:

1. Local authorities (cities, counties etc.) define the policy framework (goals) for the transport sector
2. The management level is a non-commercial entity which defines, purchases, supervises and pays for transport services (financial management)
3. Bus and rail operators are contracted to deliver services.

This three-tier approach to local public transport service delivery must be strengthened in Ukraine as well. Here, corporate decisions (tariffs and pricing structures, also in relation to season tickets) must be shifted to tiers 2 and 3.

The concept of **cost coverage** must also be **clearly defined**. The present approach – which is based on the assumption that costs are covered if, broadly speaking, diesel and personnel costs are paid for – is utterly specious. Viable strategies are required, and this means including all the internal costs associated with service delivery and regular maintenance and renewal of vehicles and physical infrastructure.

Tier 2 should also deal with the integration of offers from various municipal and private operators relating to tariffs, tickets, timetables and types of service.

NB: **Good local public transport should not have to cover costs.** State and municipal subsidies for local public transport are justified by the high social/economic benefits (e.g. avoidance of noise, reduced resource consumption, lower levels of emissions, accident prevention, etc.) and are commonly provided in other countries. It is important that the benefits of subsidising these services are clear and transparent and are reflected in increased user figures.

There are a number of practical measures which can be taken in the reform of local public transport service provision: they include revising the standard contracts between Ukrainian cities and public transport operators, implementing the three-tier approach with clear responsibilities and financial flows, and reforming the technical and normative basis for local public transport service delivery (infrastructure and operations).

➔ **KPI:** The framework conditions for local public transport have been improved and clear structures established.

IV. Ongoing reform and adaptation: regulatory reform – upgrading skills – international networking

Bridging the gap between Ukrainian mobility planning and practice, on the one hand, and international best practice, on the other, will take a generation. This assessment does not originate with the author but is the view frequently expressed by Ukraine's own decision-makers and planners. Obviously, it is primarily designed to send a clear message and is almost impossible to back up with facts and figures.

We propose that a **more detailed analysis of the quantitative and qualitative need for reform be carried out**. This should involve systematic analysis of the following topics, with benchmarking against the best European standards in each case:

- The DBN (see chapter VII) standards and their revision over recent decades
- The legislative basis
- Road traffic law and regulations
- Academic curricula and the separation between training and research institutions, which still exists in some cases
- The level of academic debate
- Skills upgrading for municipal staff in relevant fields of work
- Quality of professional organisations and alumni networks in the mobility sector
- International networking and participation in international projects

This analysis can be performed using, among other things, the well-established methodologies of gap and SWOT analyses and can be undertaken within the European twinning project framework, with the Ministry of Infrastructure as lead ministry.

➔ **KPI:** Comprehensive reform program for urban mobility planning and implementation is established

V. Innovation campaign – launch 100 pilot projects for shared learning

When new ideas are presented and discussed in many Ukrainian cities, they often meet with the following response: 'That's interesting and would certainly be useful if only it were possible, but our laws don't allow it, we have no access to funding, and we don't have enough staff to take it forward.'

In order to break this cycle of poor legislative frameworks and a lack of funding and institutional resources, we propose launching a **national innovation programme,** focusing on the following 10 thematic areas:

- Parking facility management
- Congestion fees, tolls
- Cycling infrastructure / aim: to increase cycling to > 10 %
- Bike sharing
- Car sharing
- Integrated local public transport with integrated tariffs
- A 30/50 km/h speed limit
- Low emission zones
- Bus rapid transit
- Traffic calming

This pilot programme should encourage cities to propose and implement sustainability-oriented reform projects in the thematic areas listed above. To evaluate the proposals and monitor their implementation, the author proposes the establishment of a **joint commission, comprising Ukrainian and international representatives**, supported by a **secretariat hosted by the Ukrainian Ministry of Regional Development, and Construction and Communal Living and Municipal Infrastructure**. Funding can be provided by the Sustainable Urban Mobility Fund, described below. Foreign donors are invited to participate by providing funding but especially by sharing their experience.

The Secretariat should develop an intensive programme of seminars, publications and media-oriented activities in order to promote the rapid dissemination of knowledge, information and experience, identify and if possible remove obstacles, and promote broad participation by institutional and social stakeholders.

➔ **KPI:** The **'Nasha Ukraina – nasha Mobilnist'** programme ("Our Ukraine – Our mobility" (working title)) is established and is being implemented in 100 pilot projects in at least 50 Ukrainian cities.

VI. Securing funding

Lack of funding is a serious problem for mobility policy in Ukraine. Nonetheless, it is important to acknowledge in frank and realistic terms that **mobility in Ukraine is relatively cheap**. Fuel prices are very low compared with the rest of Europe, parking charges are non-existent or nominal, tariffs in municipal and national public transport are also very low, and there are very few other mechanisms for refinancing the sector through taxes or levies.

Mobility is often seen as an **extension of social policy**: if the state fails to provide adequate pensions, welfare benefits, grants and salaries, companies are forced to carry passengers free of charge or at reduced rates. Attempts by the Asarov government to change this situation have, unfortunately, been unsuccessful so far.

It is important to make it clear that **we are not nurturing any expectation of direct profits** – and private capital shareholding in mobility projects, which naturally implies an expectation of profits, is also unrealistic. A good public transport system creates benefits for society as a whole: cleaner air, less noise pollution, fewer road deaths, and lower energy consumption.

It is essential to develop the concept of user financing in the Ukrainian mobility sector. An unpopular but potentially effective instrument in this context could be to establish a **National Fund for Sustainable Urban Mobility**, replenished by **increasing fuel tax on petrol and diesel by 1 UAH/litre**. According to rough calculations, this levy has the potential to generate revenue of approximately 11 billion UAH (1 billion euros) a year, which should be used **exclusively for the benefit of local public transport, cyclists and pedestrians**.

Cooperation on this issue should be initiated between the Ministry of Finance, the Ukrainian Ministry of Regional Development, Construction and Municipal Infrastructure and the Ministry of Infrastructure.

➔ **KPI:** The National Fund for Sustainable Mobility is established and is replenished from a levy amounting to 1 UAH/litre on petrol and diesel.

VII. Separate, mix, prioritise, redefine speed

Mobility and mobility planning in Ukraine are strongly influenced by the concept of traffic separation and separation of functions. The relevant State Construction Standards, i.e. **DBN/ДБН 360-92** (ПЛАНУВАННЯ І ЗАБУДОВА МІСЬКИХ І СІЛЬСЬКИХ ПОСЕЛЕНЬ; Planning and development of urban and rural settlements) and **DBN/ДБН V/B 2.3-5-2001** (ВУЛИЦІ ТА ДОРОГИ НАСЕЛЕНИХ ПУНКТІВ; Transportation structures. Streets and roads in populated areas) often refer to **vertical or horizontal separation of transport facilities** or **separation of functions** (e.g. residential, work, business) in relation to the management of traffic flows. This is combined with very high target speeds and low volumes of traffic (on urban freeways, assumed speeds are as high as 120 km/h).

While this basic concept may have some degree of legitimacy (with Le Corbusier and older versions of the USA's Highway Capacity Manuals still resonating here), it is becoming increasingly difficult to implement it at a time of increasing individualism and ever more diverse individual expectations and interests. Nowadays, people want to travel at different times to a wider range of destinations using a variety of faster transport options that are tailored to their needs. Whereas in the past, people would travel straight from home to their workplace at an industrial complex, this has now given way to a multiplicity of journeys to a range of destinations associated with the service society – in order to access business opportunities and customers, markets and leisure amenities. The number of transport modes is also increasing: besides traditional local public transport, there are now large numbers of private cars, privately owned minibus taxis (marshrutnoe taksi), cycles and mopeds.

Clearly, it is not feasible to expand the transport infrastructure to make full provision for all these modes of transport and all destinations. So in future, the focus must shift to **mobility management** with clearly defined usage priorities, with separation only permitted for non-compatible forms of use and high speeds, and with mixed traffic becoming the norm, especially in city centres and residential areas.

Prioritisation must be based on the economic, social and environmental impacts and on the following hierarchical sequence:

- Pedestrians
- Public transport (on major arteries and in area development)
- Cyclists

- Use of public spaces
- Delivery vehicles
- Free-flowing traffic
- Stationary traffic.

Rigid **separation** of the various types of transport is only justified at high speeds or when there is a need to prioritise public transport (rapid transit buses and trams) on major arteries. Of course, this is not an argument in favour of the wholesale introduction of 'shared space', but it is an argument in favour of careful merging of cars and cyclists and of cyclists and pedestrians, for frequent ground-level crossing points for pedestrians in streets and open spaces, and a high level of permeability in the urban space.

Where **separation and prioritisation are necessary**, for example under schemes to create separate bus lanes to speed up bus travel, a reform of the DBNs is also needed.

A **mix** of traffic, based on the principle of mutual consideration, can reduce land consumption and increase the competitiveness of sustainable modes such as walking, cycling and local public transport in area development. A key prerequisite for an acceptable modal mix is the introduction of the 30/50 km/h speed limit, with 30 km/h being the maximum speed permitted in residential and mixed areas. The current permitted speed of 60 km/h in cities (with actual speeds often exceeding 80 km/h) is outdated compared with other countries and puts lives at risk.

A need for reform also arises in relation to the adaptation of the DBNs to **new technical developments** in the fields of vehicle manufacturing, road construction and technology. Relevant examples are the distance between the tracks and the permissible width of trams.

➔ **KPI:** The DBNs and relevant technical standards for planning and use of transport modes have been revised

Conclusion:

The above points do not, by any means, constitute a comprehensive overview of all the challenges related to sustainable mobility in Ukrainian cities. Other topical aspects such as poor traffic safety, endemic corruption, inadequate statistics, lack of logistics centres and city logistics strategies, and the absence of parking management are not discussed here. The aim is to present overarching themes, outline some of the problems, and identify possible solutions.

Decisions for or against individual approaches and priorities within the individual areas will influence mobility in Ukrainian cities in the coming decades. Before any decisions are taken, it is essential to weigh up whether, directly or indirectly, the measure makes using the car more attractive, or whether it promotes walking, cycling and local public transport. Is the decision in line with the old or the new paradigm? This will determine what the future holds – will it consist of gridlock, or will mobility be diverse, attractive and affordable, with few negative impacts? The policy course will be established in the next few years.

It is clear that there are no black and white solutions, panaceas or low-cost quick wins. Success will only come from ongoing and systematic conceptual development and the positive conflict of ideas.

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Shaping the future – let's start today!