Main principles of building green and sustainable urban transport systems

Workshop on Green Urban Transport
Geneva, 17 September 2021
Vienna Declaration: **Building forward better by transforming to new, clean, safe, healthy and inclusive mobility and transport**

**Annexes**

1. Key facts and figures on transport, health and environment
2. Recommendations for Green and Healthy Sustainable Transport
3. Pan-European Master Plan for Cycling Promotion
4. Policy Recommendations for Eco-driving
5. Conclusions and recommendations of the Handbook on Sustainable Urban Mobility and Spatial Planning
6. Workplan for the period 2021–2025 (a first relay-race event in October 2021, in St. Petersburg, Russian Federation, on integration of transport and urban planning)
Current status

Urban sprawl leads to generation of additional transport demand

The majority of cars are in cities whose road infrastructure is not designed for increasing number of cars and has practically no potential for expansion

Need to pay attention for externalities

Importance of the balance between mobility and accessibility needs
Urban mobility we want

- **SUSTAINABLE** – reducing environmental impact
- **EFFICIENT** - stable, high-quality service with full user awareness
- **SAFE** - without an accident

Urbanization and motorization is a challenge to the sustainability of transport systems
Comprehensive approach

Understanding the objectives, the tasks to be solved and need to develop strategic transport planning documents

Implementation of methodological recommendations
• Development of documentation in the field of traffic management
• Effectiveness of road traffic management
• Development of walking and cycling routes
• Development of transport and transfer hubs
• Mathematical modeling software products
• Organization of parking space

Prevention of the possibility of road accidents at the stage of road traffic design

Replacing part of the induced demand
Different solutions

Depending on the characteristics of the territories

- Small-scale (suitable for large-scale construction and development)
- Partially mastered (have a reserve for development)
- With dense development (lack of space)
Factors affecting demand

- Urban planning policy
- Level of motorization
- Level of public transport development
- Level of green and healthy mobility
New normality

- Trips were replaced by virtual contacts
- Increasing attention to the green transport solutions
- New requirements for safety
Green mobility

Rail, Metro, Tram/Light Rail, E-bus, Trolleybus, Cycling, Walking, New types of e-mobility

- Infrastructure
- Rules
- Services
- Promotion
Cycling & Walking

- Development the Infrastructure
- Various vehicle sharing systems
- Traffic management in residential areas
- Transport and pedestrian connectivity of territories
- Activities to improve road safety at the national level
Improving the sustainability of urban transport systems

- Public transport network
- Public transport fleet and infrastructure
- Promotion of electric public transport
- Traffic management system
Interrelation between Transport Planning and Urban Planning

- Coordinating the development of cities and urban transport systems
- Transport demand generation
- Promotion of Green And Public transport services
- Ensuring transport and pedestrian connectivity of the territories
- Organization of rational distribution of traffic flows on the road network

Most big cities have developed their own transport planning documents which are the base for reshaping of urban transport systems
Analytical work in the development of planning documents

Factors:
• socio-economic and territorial development of the existing Urban Road Network schemes
• current state of transport service system by mode of transport
• conditions for walking and cycling on the territory of the agglomeration
• movement of goods vehicles
• level of road safety
• level of negative impact of transport infrastructure on the environment and public health
Integrated traffic management schemes: bicycles

- Forecast of demand for the movement of cyclists
- Identification of the main objects of gravitation of bicycle flows
- Define cycling routes
- Define the type and location of cycle lanes
- Identification of places for additional bicycle crossings across the road networks and their type
- Identification of parking spaces for bicycles
- Prediction of bicycle flows based on decisions taken
- Assessment of the impact of the adoption of decisions
Effects

- Decreasing negative impact on the environment
- Improving public health
- Lower cost of transportation and more efficient use of transport
- Reduced travel time for passengers
- Reduction of the number of accidents and conflict points
Thank you for your attention