



TROLLEYBUS

MOTAS



UITP TROLLEYBUS COMMITTEE

Deliverables for UITP Global Working Plan (plan and forecast: Discussion

4th Session – WG Coordination

23rd Trolleybus Committee Meeting

**MALATYA
OCTOBER, 2015**

DELIVERABLES FOR UITP GLOBAL WORKING PLAN PLAN AND FORECAST: DISCUSSION

Sergei Korolkov

Arno Kerkhof

- ✓ Global Work Plan and Role of the PresCom
- ✓ Shift from working group-based to project-based
- ✓ Output driven: Deliverables Service Table
- ✓ Formally submission through a so-called Project Case to the management of UITP for consideration by PresCom



IGWP

OVERVIEW OF TOPICS FROM UITP WORK PROGRAMME 2015-2017

UITP STRUCTURE

Sectoral Divisions and Committees	Modal Divisions and Committees	Thematic Commissions	Other Expert Groups
Industry	Bus	Business and Human Resources Management	Academic Network
Information Technology and Service Industry	Trolleybus	Information Technology and	Exhibitions Commission
Vehicles and Equipment Industry	Light Rail		Customised Mobility Platform
Organising Authorities			Culture Platform
			ERT (Small
			ons and Regional
			ort) Platform
			Platform
			ne Transport
			Platform



FINDING

Bottom – up approach

Vast and rich programme

But...

Piecemeal, duplication, gaps...

Better visibility of association's action

- To the sector (knowledge)
- To external stakeholders (advocacy)

Need for integrated approach, synergies

Add a top - down dimension / coordination

WHO IS IN CHARGE

Policy Board: approves and monitors



PresCom: defines and proposes



Committees and Commissions: suggests and execute



Secretariat: support all process

IGWP APPROACH

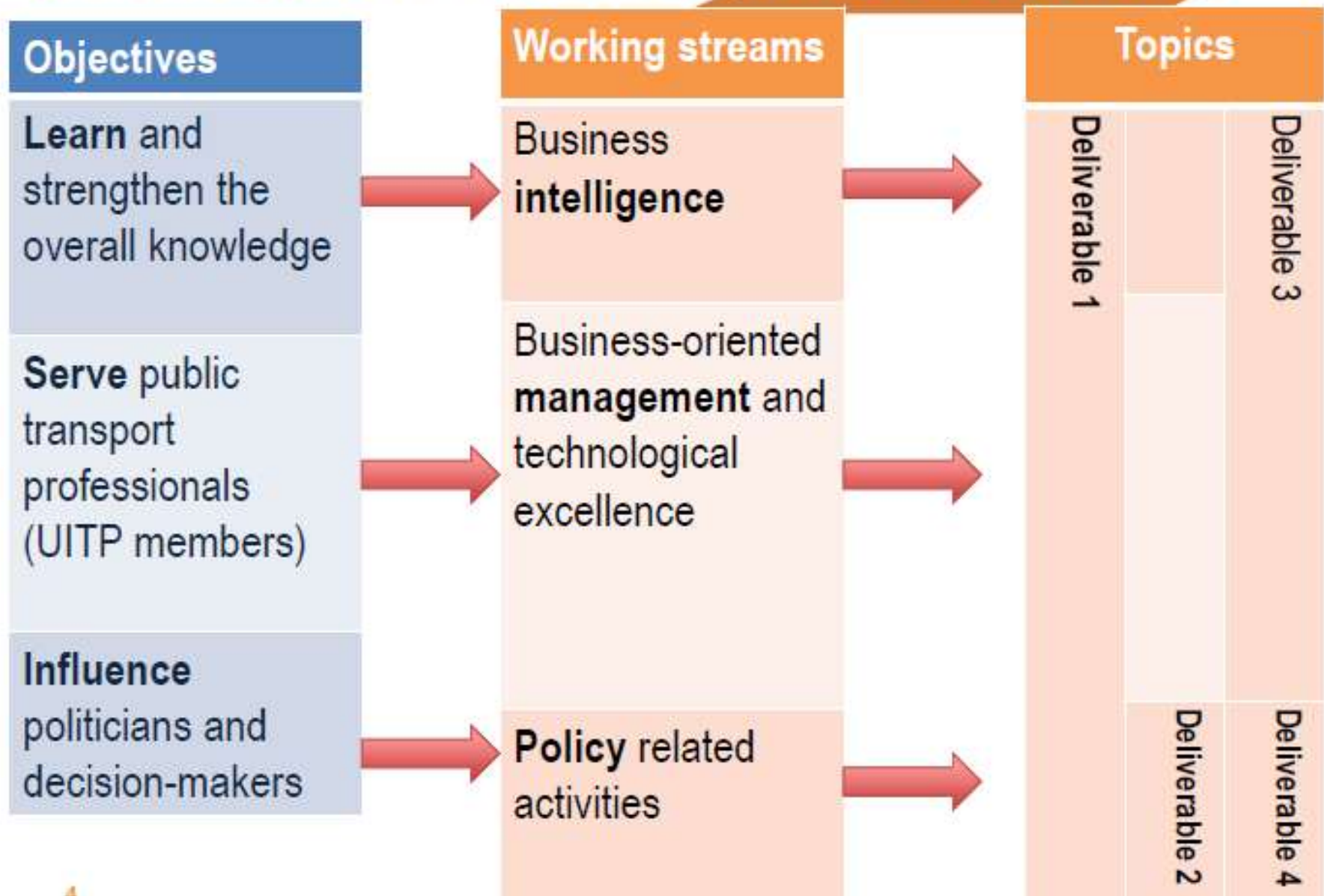


UITP INTEGRATED GLOBAL WORK PROGRAMME

JUNE 2015 - MAY 2017

OBJECTIVES		WORKING STREAMS	
Learn and strengthen the overall knowledge	→	Business intelligence	
Serve public transport professionals (UITP members)	→	Business-oriented management and technological excellence	
Engage with politicians and decision-makers	→	Policy related activities	


APPROACH FOR IGWP 2015-2017



STRUCTURE OF IGWP 2015-2017:

PRIORITY TOPICS

	Business intelligence	Business-oriented management and technological excellence	Policy related activities
Working body 1	Topic A		Topic B
Working body 2		Topic C	
...			
Working body 25	Topic Z	Topic C	



Public transport trends report
Other (external) megatrends
Working bodies' proposals

STRUCTURE OF IGWP 2015-2017:

DELIVERABLES

	Business intelligence	Business-oriented management and technological excellence	Policy related activities
Working body 1	Seminar		Publication
Working body 2		Project	
...			
Working body 25	Policy Brief	Workshop	



Proposals of Working Bodies and Secretariat

PRIORITY CLUSTERS 2015-17



- ❑ Demographic trends and mobility in urban areas
- ❑ Governing and providing mobility in connected cities
- ❑ Public transport funding
- ❑ Globalisation and emerging players
- ❑ Climate change, pollution and energy
- ❑ HR: succeeding the transition

DRAFT OVERVIEW OF TOPICS FROM UITP WORK PROGRAMME 2015-2017

PRIORITY CLUSTERS	WORKING TOPICS	
1. Demographic trends and mobility in urban areas <i>- Addressing fast growing demand</i> <i>- Making informed modal choices and providing integration</i> <i>- Professionalising and formalising the public transport market</i> <i>- Developing new urban planning models (Transit-oriented communities)</i> <i>- Facing income inequalities in cities</i> <i>- Improving mobility in low density areas</i>	suburban and regional transport	Transport in suburban areas (2016/12)
	addressing fast growing demand	METRO REPORT OPERATIONS REAL TIME MANAGEMENT OFFER - SATURATED NETWORKS (2016/12) – Train structure gauge optimization in existing tunnels
	benefits of PT for the city	<p>Role of metro systems and light rail in the development of cities</p> <p>Declaration on Contribution of PT to urban agenda (2016/01)</p> <p>PT AND NEIGHBORHOOD DEVELOPMENT POLICY BRIEF (2016/12)</p> <p>PT AND GREEN NEIGHBORHOOD WORKSHOP (03/2017)</p>
	professionalisation	C6-professionalising and formalising informal transport

DRAFT OVERVIEW OF TOPICS FROM UITP WORK PROGRAMME 2015-2017

2. Governing and providing mobility in connected cities <i>- Governing mobility in a digital and connected market</i> <i>- Providing lifestyle services in the public transport system</i> <i>- Integrating the shared-use of cars into the public transport chain</i> <i>- Exploiting open/big data to improve customer relationship and service quality</i> <i>- Analysing the impacts of automated vehicles on conventional modes and demand for mobility</i> <i>- Leading the development of Smart cities</i>	Design & Culture in PT	Information design forum
		Update design publication
		workshop art in transit
	Smartcities	ElISS SC - Power supply infrastructure for electric road vehicles
		Elliptic projects on the electrification of PT in cities: <ul style="list-style-type: none"> safe integration of e-buses into existing electric public transport infrastructure through recharging them "en route" and upgrading trolleybus networks with battery buses or trolleyhybrids and automatic wiring/de-wiring technology smart energy management upgrade of electric public transport systems for rail multi-purpose use of electric public transport infrastructure, e.g. for safe recharging of non-public transport vehicles.
		Review of smart city policies / strategies / standards
	PT in the urban transport network	PARKING POLICIES AND PARK & RIDE
		SHARED MOBILITY SERVICES AND RIDE SELLING PLATFORMS
		NODES projects on urban interchanges
		COMBINED MOBILITY WORKSHOP
	big data and digitization in PT	digitization of PT
		IT2Rail – S2R project on ticketing
		IMPACT OF DIGITALISATION
		towards standardized data formats
		making the most out of big data / digital strategies in PT
		Opticities project on integrated network management and PT
		Adressing cybersecurity in public transport organisations

DRAFT OVERVIEW OF TOPICS FROM UITP WORK PROGRAMME 2015-2017

3. Public transport funding <i>- Managing free/peak capacity in urban mobility</i> <i>- Providing regulatory framework for infrastructure investment</i> <i>- Informing modal choice</i> <i>- Defining resilient funding architecture</i> <i>- Advocating the economic benefits of public transport</i> <i>- Engaging with the business community</i> <i>- Securing contribution from indirect beneficiaries</i>	Financing PT infrastructure	funding infrastructure mapping (2016/7), C7 - Land Value Capture report
	Financing PT	RATE OF RETURN KNOWLEDGE BRIEF
		FINCO Metro Fraud
		PEAK MANAGEMENT KNOWLEDGE BRIEF
		knowledge brief on coverage rate
	Economic benefits of PT	Manual on Engaging with business community
		Manual on Measuring economic benefits of PT
		Positive externalities in metros

DRAFT OVERVIEW OF TOPICS FROM UITP WORK PROGRAMME 2015-2017

4. Globalisation and emerging players <i>- Identifying and monitoring market development</i> <i>- Understanding the changes and challenges related to the involvement of new players</i> <i>- Providing fair and transparent regulatory framework</i> <i>- Integrating new technologies and innovative business approaches</i> <i>- Rationalising production costs (incl. standardisation) and fostering operational excellence</i>	Research and innovation	Foster rail, SETRIS, EBSF2, etc research roadmaps
	Light Rail operational excellence	Light rail global statistics update - benchmarking
	Metro operational excellence	statistics brief on metros and automated metros
		RISK MANAGEMENT WORKSHOP
		RIO BRAZIL 94 METRO ASSEMBLY
		METRO OBSERVATORY UTO SINGULARITIES OF PROJECT MANAGEMENT
		METRO REPORT RS SC DEVELOPMENT OF A RS MAINTENANCE PROGRAMME
		METRO REPORT RS SC ADAPTING OLD DEPOT TO NEW ROLLING STOCK
		P1 - Observatory UTO - Database automated metro lines
		P1 - Observatory - Atlas of Automated Metros report
		METRO REPORT OP SC INDICATORS FOR RAIL OPERATING SAFETY
		METRO REPORT OP SC - REAL-TIME OPERATIONAL CONTROL CENTERS
		METRO REPORT FISC T47 - PLATFORM SCREEN DOORS
		METRO REPORT EISS TOPIC 49 VENTILATION
		METRO REPORT EISS TOPIC 47 RETURN CURRENTS
		METRO REPORT EISS TOPIC 41 MAINTENANCE INDICATORS
		METRO REPORT EISS SC TOPIC38 ASSETS LIFE EXTENSION
		METRO REPORT SC EISS TOPIC50 SYSTEMS ENGINEERING
		METRO EISS SC REPORT TOPIC 46 REMOTE CONDITION MONITORING OF ASSETS

DRAFT OVERVIEW OF TOPICS FROM UITP WORK PROGRAMME 2015-2017

4. Globalisation and emerging players - Identifying and monitoring market development - Understanding the changes and challenges related to the involvement of new players - Providing fair and transparent regulatory framework - Integrating new technologies and innovative business approaches - Rationalising production costs (incl. standardisation) and fostering operational excellence	rail operational excellence	NGTC Next Generation of Train Control Systems for a Sustainable Surface Transport and Successful Modal Shift
		European regional and suburban rail landscape
	Waterborne operational excellence	knowledge brief on waterborne operating profiles
		workshop on waterborne integration
		PIER BUILDING AND MAINTENANCE REPORT ENERGY EFFICIENCY AND PROPULSION SYSTEM IN WATERBORNE TRANSPORT WORKSHOP
	Bus operational excellence	bus operators basic numerical indicators (2015:12), KPIs / benchmarking
		knowledge brief on passenger information
		EBSF2 – European bus System of the Future
		tendering specifications for buses
	Trolley bus operational excellence	trolleybus statistics (2015/10), KPIs - benchmarking
		TROLLEYBUS E-PUBLICATIONS, trolley bus workshop in Malatya
	taxi operational excellence	statistics, KPIs / benchmarking, E9 - India workshop on taxi operations, Chennai (2015/09)
	cable systems	Study and core brief on transport cable systems

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		Tendering integrated PT operations
		Improved Structure and Organisation for Public Transport Operations in MENA
	security	Video Surveillance in PT – International Trends (Full Report),
		Risk Assessment Software tool
		Graffiti knowledge brief; Graffiti database
		Security Policy Brief: how security contributes to PTx2
		Security Workshop
		Security Study Tour,

DRAFT OVERVIEW OF TOPICS FROM UITP WORK PROGRAMME 2015-2017

5. Climate change, air pollution and energy <i>- Reducing the carbon footprint and pricing carbon</i> <i>- Improving air quality</i> <i>- Enhancing resiliency of public transport infrastructure</i> <i>- Advocating the impact of public transport on health</i> <i>- Promoting active modes of transport</i>	Greater energy efficiency in PT	Eurasia electric transport regional conference, Minsk (2015/09)
		E-bus plug standardisation working group (05/2017)
		Elliptic - Optimising existing electric infrastructure and rolling stock in order to reduce costs and energy consumption • safe integration of e-buses into existing electric public transport infrastructure through recharging them “en route” and upgrading trolleybus networks with battery buses or trolleyhybrids and automatic wiring/de-wiring technology • smart energy management upgrade of electric public transport systems for rail • multi-purpose use of electric public transport infrastructure, e.g. for safe recharging of non-public transport vehicles.
		ZEEUS – electric buses eSORT brochure
		METRO REPORT EISS SC USE OF LEDS FOR LIGHTING METRO STATIONS (2016/06)
		FTSO Report Brochure Booklet (2016/09)
	health	2015 HEALTH AND TRANSPORT POLICY BRIEF
	Sustainability charter to fight climate change	(Financial) contribution to Slocat (2016/7)
		seminar FLOODING PREPAREDNESS AND MITIGATION IN URBAN RAIL (date ?)
		Guideline on materiality and enterprise risk management
		Alignment of the Charter's Sustainability Reporting Framework to the UN Global Compact and OECD reporting framework
		Alignment of the Charter's Sustainability Reporting Framework to European Directive 2014/95/EU
		Reporting guide translating the GPC for public transport professionals with support of the C40 Cities
		Demonstrate implementation of the commitments pledged at the UN Climate Summit at COP21 (12/15) and beyond and highlighting the 'policies that work' to enable the wider goal for the sector (PTx2) – in support of the Lima-Paris Action Agenda
		the implications of COP21 and the post 2015 development agenda for public transport

DRAFT OVERVIEW OF TOPICS FROM UITP WORK PROGRAMME 2015-2017

6. Human resources: succeeding the transition <i>- Professionalising and formalizing employments (incl. capacity building)</i> <i>- Providing customer-focused and business-oriented services</i> <i>- Strengthening employer's branding</i> <i>- Involving with social partners and improving social dialogue</i> <i>- Promoting diversity in jobs</i>	Marketing & branding	BRANDING AND IMAGE KNOWLEDGE BRIEF
	HR	Workshop on bus drivers training
		METRO REPORT OP SC - USE OF MOBILE PHONES BY DRIVERS AND SUPPORT STAFF
		METRO REPORT OP SC PSYCHOLOGICAL ABILITY FOR DRIVING
	observatory of employment	ATTRACTIVENESS OF COMPANIES AS AN EMPLOYER, ABSENTEEISM TOOLBOX

UITP DELIVERABLES

TYPOLGY OF UITP SERVICES/DELIVERABLES

Events	Information services	Projects
E1 - General Assembly	C1 - Communications Campaign	P1 - Statistics / Facts & figures
E2 - Executive and Policy Boards	C2 - PTI Magazine	P2 - Benchmarking activity
E3 - Divisional Assembly	C3 - UITP Direct Newsletter	P3 - Thematic study
E4 - Committee/ssion meeting	C4 - Policy Brief	P4 - Manual/Guideline
E5 - Global PT Summit & Exhibition	C5 - Action Points	P5 - Special initiative
E6 - Regional Congress & Exhibition	C6 - Knowledge Brief	P6 - Third-party funded Project
E7 - International Conference (&Exhibition)	C7 - Brochures/Publications	
E8 - Regional Conference	C8 - Thematic Newsletter	
E9 - Workshop/Round table	C9 - List of members	
E10 - Regular/periodic trainings	C10 - Report of activities	Customised services
E11 - Study tour	C11 - Web site	D1 - Customised training / study tour
E12 - Webinar	C12 - Mobi+	D2 - Peer review
E13 - Non-UITP event (Structural alliance)	C13 - myUITP.org	D3 - Customised Information
E14 - Non-UITP event (Punctual involvement)	C14 - Social media	D4 - Announcements (ex: Jobs, tenders)
E15 - International Seminar	C15 - Members hot line	D5 - Connecting between PT professionals
E16 - Special events for high-level Executives	C16 - Awards	
E17 - Advocacy event	C17 - Market watch / Business intelligence	
E18 - Advocacy dinner	C18- Statistics Brief	
E19 - EU Project event	C19- Statistics Analysis	
	C20- Event Wrap Up	
	C21 - Regional Newsletter	



STEERING BOARD

Chairman

Sergei KOROLKOV

Vice-Chairman (Advocacy & Media)

Per Gunnar ANDERSSON

Vice-Chairman (Regions)

Eduard POKROVSKY

Vice-Chairman (Authority)

Dave HASKINS

Vice-Chairman (Operator)

Thomas FONTAINE

Vice-Chairman (Industry)

Zdenek VYTOUS

Vice-Chairman (R&D Projects)

Wolfgang BACKHAUS

Head of BUS Division

Arno KERKHOF

Chairpersons (or Vice-Chairperson) of Working Groups

Forging consensus figures for showing evidence and quantitative basis for arguments and advocacy tools



WORKING GROUPS

Advocacy, Outreach and Media

Per Gunnar ANDERSSON

**How to operate
an efficient trolleybus and e-grid bus systems**

Thomas FONTAINE

**How to build
an efficient trolleybus and e-grid bus system**

Michael PANDION

Modern feeding and supplying infrastructure

Daniel STEINER

Modern Trolleybus and e-grid bus fleet

Zdenek VYTOUS

Technical specifications. Tender and SORT requirements

Adam ZIELINSKY

Latin America

Roberto B. BERKES

Welcome on Board

WORKING GROUP/DIRECTION

Advocacy, Outreach and Media

Per Gunnar ANDERSSON

Sergei KOROLKOV

Arno KERKHOF

...



CAMPAIGNE TIME!

Trolleybus Committee Declaration

Trolleybus Operator Appeal

Advocacy & Outreach

UITP Newsletters

UITP Magazine

REPORT FROM “ADVOCACY, OUTREACH AND MEDIA”

*By Per Gunnar Andersson
Executive Vice President*

- ✓ Finalising and marketing of “HOW TO BUILD AND OPERATE AN EFFICIENT TROLLEYBUS SYSTEM”
- ✓ UITP Knowledge brief on trolleybuses panorama
- ✓ World use of “Recommendations of public policies for electric busses in Latin America”
- ✓ Comments on “Green Fleet Technology Study for Public Transport”
- ✓ Newsletter – we need more input of news from the electric bus world
- ✓ Comments on cities planning to close trolleybus operation
- ✓ More help in the group from PKT Gdynia (Marta)

WORKING GROUP/DIRECTION

AUTHORITY

Dave HASKINS
Louise PORTER
Raimondo BRIZZI-ALBERTELLI
Antonio PIOVESAN
Roberto B. BERKESH

...

ACTIONS AND DELIVERABLES:

- **ESTABLISH A WORKING SUB-GROUP OF AUTHORITIES** – communication via email and potential tele-conferencing (volunteers requested)
- **PREPARE A SHORT ADVOCACY BROCHURE** (end 2015 TBC)

- **TO HIGHLIGHT AUTHORITIES** who have a trolleybus system, or are planning a new system/extensions.
- **TO PRESENT VIEWPOINTS AROUND THE IMPORTANCE** of the trolleybus systems.
- **TO PROVIDE A POINT OF CONTACT FOR ANY CITIES** who are considering trolleybus as an option

next steps following to **Dave Haskins's** proposal -→ attached

WORKING GROUP

REGION POLICY

**Eduard POKROVSKY
Alexander KALEDIN
Leevon TEEAN**

...



UNBALANCE OF REGIONAL SPREAD

·
51 trolleybus operators member of UITP with the region split as follows (roughly):

Europe: Russia/CIS : Latin America : Asia = 45 : 3 : 2 : 1

Now have a look at the **distribution of 301 systems worldwide :**

Europe: Russia/CIS : Latin America : Asia = 92 : 156 : 9 : 35



WORLD TROLLEYBUS SYSTEMS AND FLEET

Region	Number of enterprises (trolleybus cities)	Number of trolleybuses
CIS and Baltic States	156	19 103
Western Europe	42	2003
East Europe	50	2825
Asia	35	1836
Africa	-	2
North America	8	1312
South America	9	633
Australia and Oceania	1	60
Total	301	27 814

OCTOBER 2013



TROLLEYBUS AROUND THE WORLD



- 
- **THE EXPANSION OF THE MEMBERSHIP BASE** and the establishment of Regional Working groups in Eurasia, North America, Asia and the Pacific (including China);
 - **PART HIGHLIGHTS OF** establishment and functioning of trolleybus systems by region;
 - **LEGAL FRAMEWORK** - to encourage and support competition. Comparative analysis by regions
 - **TRENDS IN THE DEVELOPMENT OF ELECTRIC GRID MODES** of transport in the regions: the driving factors and challenges;

WORKING GROUP

HOW TO OPERATE AN EFFICIENT TROLLEYBUS and E-GRID BUS SYSTEMS

**Thomas FONTAINE
Conrad TROULIER
Michael PANDION
Eduard POKROVSKY
Alexander ERMAKOV**

...

SCOPE:

- **Identify Key Performance Indicators (KPI)** defining the operations maturity of a trolleybus system
- **Achieve a benchmark based on the KPI**
- **Define the best practices** on operations, maintenance organisation

DELIVERABLES :

- 1st phase : summary of KPI
- 2nd phase : benchmark report and best practices summary.

WORKING GROUP

R&D PROJECTS' COORDINATION

**Wolfgang BACKHAUS
Andreas RANDACHER**

...

Following Wolfgang BACKHAUS presentation → attached

WORKING GROUP

HOW TO BUILD AN EFFICIENT TROLLEYBUS and E-GRID BUS SYSTEM

**Michael PANDION
Dave HASKINGS
Louise PORTER
Luc Y. TREMBLAY
Wolfgang BACKHAUS
Gunter MACKINGER
Andreas RANDACHER
Per Gunnar ANDESSON**

...

WORKING GROUP

MODERN FEEDING AND SUPPLYING INFRASTRUCTURE

**Daniel STEINER
Christos STYLOS**

...

WORKING GROUP

MODERN & INNOVATIVE TROLLEYBUS AND E-GRID BUS FLEET

**Zdenek VYTOUS
Hans-Jörg GISLER
Erik LENZ**

...

**Interaction with Bus Committee:
FTSO**

WORKING GROUP

TECHNICAL SPECIFICATIONS. TENDER and SORT REQUIREMENTS

**Adam ZIELINSKY
Pavel KUCH
Leevon TEAN**

...

**Interaction with Bus Committee
SORT**



DEVELOPING OF TROLLEYBUS SORT PROCEDURE –

involving Technical University in order to define in a science way a set of applicable measurment instruments and all electrical conditions of the tested vehicle and the measurment process itself.

Probably UITP support needed – to be verified

❖ Deliverables expected autumn 2015



INTEGRATION OF INSTRUCTIONS

prepared by the University with SORT drafts procedures being in preparation by E-bus and Hybrid bus SORT PROCEDURE GROUP, working periodically in Brussels.

❖ Deliverables expected spring 2016



WORKING OUT THE TECHNICAL RECOMMENDATION LIST, LEGAL COMPLIANCE LIST

**meeting newest EU directives, Recommended Vehicles
Delivery Plan for operators. Characteristic of trolleybus
manufacturing, testing and certification process.**

❖ Deliverables expected summer 2016

WORKING GROUP

LATIN AMERICA

Roberto B. BERKESH

...



Current WG composition

Basic Nucleus – 7 people – 2 from bus operators (1 LATAM UITP coordinator); 2 consultants; 1 bus equipment manufacturer; 2 from UITP Brazil office

Expected / Desired Composition

Until end of 2015 – increase participants of bus equipment manufacturers

Expected Guests / Potential members for UITP

Bus equipment manufacturers; public authorities (small/medium cities City council officers)



Summary of Achieved Issues in 2013 / 2014
Establishment of UITP TWG in São Paulo for Latin America

**Preparation of the RECOMMENDATIONS OF PUBLIC
POLICIES FOR TROLLEYBUS SYSTEMS IN LATIN AMERICA**

Formulation of Goal

**Increase share of Trolleybus in the Latin America public
transport systems**



Timeframe - 2015 TROLLEYBUS Committee Plans and Activities

Jan /March 2015 - 3 Meetings

3 Meetings for Preparation of Action Plan Summary of The Recommendations of Public Policies for TROLLEYBUS Systems in Latin America

Preparation of English Translation of The Recommendations of Public Policies for TROLLEYBUS Systems in Latin America

TBC DELIVERABLES IN PROGRESS

Included in UITP Integrated Global Plan:

How to Build and Operate a Trolleybus Network, Part 1. Guidelines

-

Release 2015

Recommendations of Public policies for Electric Buses in Latin America -

Release 2015

Trolleybus World from A to Z -

Release 2015-16

Propositions:

SORT for Trolleybus & e-Grid bus

-

Release 2016

Trolleybus & e-Grid bus infrastructure: Solutions

-

Release 2017

How to Build and Operate a Trolleybus Network, Part 2. Manual

-

Release 2016

Regional highlights of creating and functioning of trolleybus systems

-Release 2017

Underway:

Core Brief on Technical evolution of trolleybus. Panorama of the most promising trends

-

Release 2015-17

UITP Trolleybus Statistics/Benchmarking

-

Release 2015-17



ADVANCING
PUBLIC
TRANSPORT

**THANK YOU VERY MUCH FOR YOUR
KIND ATTENTION!**

WELCOME ON BOARD

Arno KERKHOF
UITP BUS Division

Sergey KOROLKOV, PhD
Trolleybus Committee Chairman



TROLLEYBUS

