



TROLLEYBUS

**MOTAS**



# UITP TROLLEYBUS COMMITTEE

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

4th Session – WG Coordination

23<sup>rd</sup> 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



**MOTAS**



# **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		Exhibitions Commission
Vehicles and Equipment Industry	Light Rail	Information Technology and	Cooking and Mobility Platform
Organising Authorities			Culture Platform
		RT (Small Regions and Regional Transport) Platform	
		Platform	
		Home Transport Platform	
		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

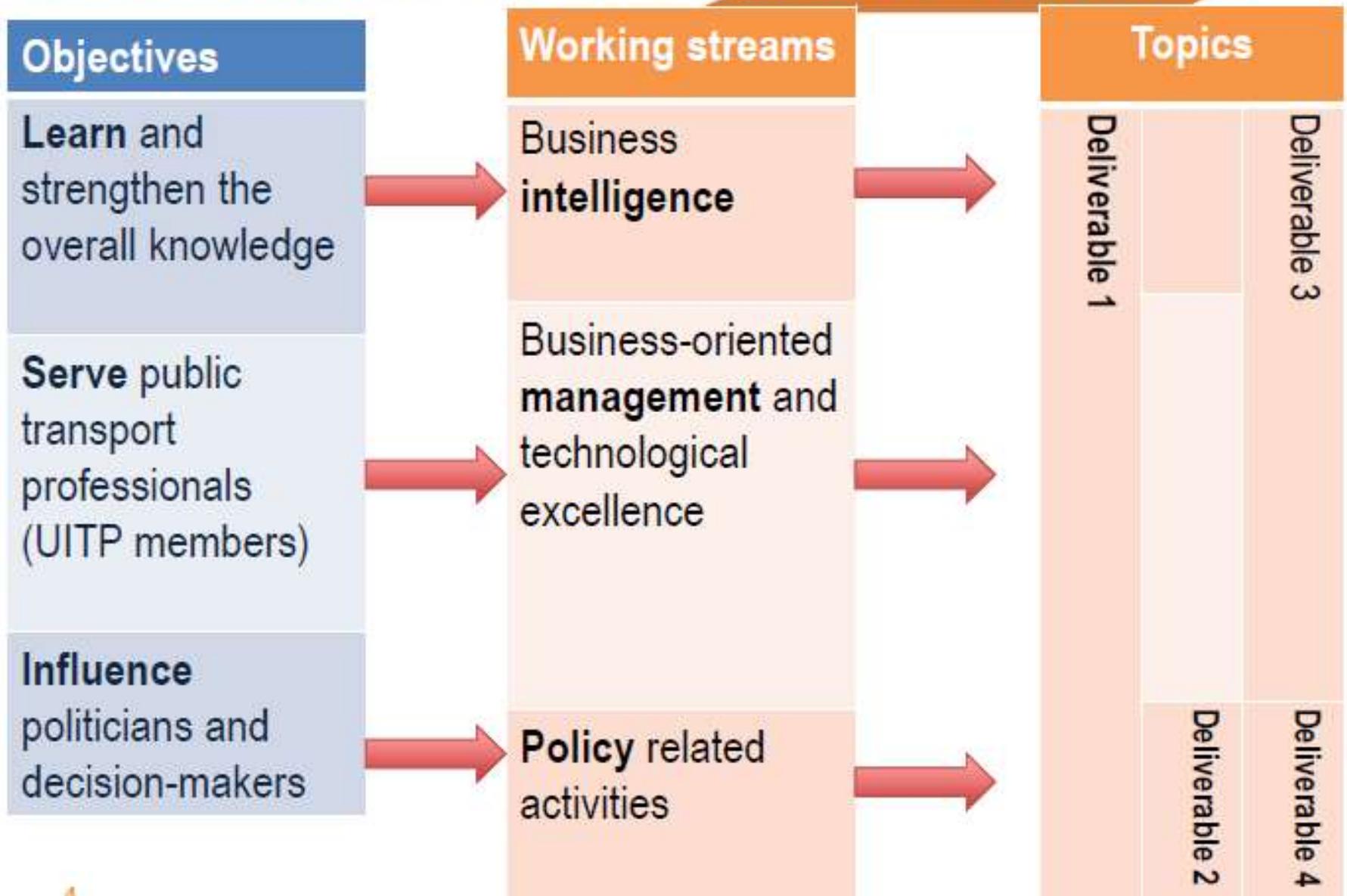


## UITP INTEGRATED GLOBAL WORK PROGRAMME

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

# DRAFT OVERVIEW OF TOPICS FROM UITP WORK PROGRAMME 2015-2017

<p><b>2. Governing and providing mobility in connected cities</b></p> <ul style="list-style-type: none"> <li>- Governing mobility in a digital and connected market</li> <li>- Providing lifestyle services in the public transport system</li> <li>- Integrating the shared-use of cars into the public transport chain</li> <li>- Exploiting open/big data to improve customer relationship and service quality</li> <li>- Analysing the impacts of automated vehicles on conventional modes and demand for mobility</li> <li>- Leading the development of Smart cities</li> </ul>	<p><b>Design &amp; Culture in PT</b></p>	Information design forum
		Update design publication
		workshop art in transit
	<p><b>Smartcities</b></p>	<p><b>EISS SC - Power supply infrastructure for electric road vehicles</b></p> <p><b>Elliptic projects on the electrification of PT in cities:</b></p> <ul style="list-style-type: none"> <li>• 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</li> <li>• smart energy management upgrade of electric public transport systems for rail</li> <li>• multi-purpose use of electric public transport infrastructure, e.g. for safe recharging of non-public transport vehicles.</li> </ul>
		Review of smart city policies / strategies / standards
		<p><b>PARKING POLICIES AND PARK &amp; RIDE</b></p> <p><b>SHARED MOBILITY SERVICES AND RIDE SELLING PLATFORMS</b></p> <p><b>NODES projects on urban interchanges</b></p> <p><b>COMBINED MOBILITY WORKSHOP</b></p>
	<p><b>PT in the urban transport network</b></p>	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
	<p><b>big data and digitization in PT</b></p>	Adressing cybersecurity in public transport organisations

# DRAFT OVERVIEW OF TOPICS FROM UITP WORK PROGRAMME 2015-2017

<b>3. Public transport funding</b> <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>	<b>Financing PT infrastructure</b>	<b>funding infrastructure mapping (2016/7), C7 - Land Value Capture report</b>
	<b>Financing PT</b>	<b>RATE OF RETURN KNOWLEDGE BRIEF</b>
		<b>FINCO Metro Fraud</b>
		<b>PEAK MANAGEMENT KNOWLEDGE BRIEF</b>
		<b>knowledge brief on coverage rate</b>
	<b>Economic benefits of PT</b>	<b>Manual on Engaging with business community</b>
		<b>Manual on Measuring economic benefits of PT</b>
		<b>Positive externalities in metros</b>

# DRAFT OVERVIEW OF TOPICS FROM UITP WORK PROGRAMME 2015-2017

<b>4. Globalisation and emerging players</b> <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>	<b>Research and innovation</b>	Foster rail, SETRIS, EBSF2, etc research roadmaps
	<b>Light Rail operational excellence</b>	Light rail global statistics update - benchmarking
	<b>Metro operational excellence</b>	statistics brief on metros and automated metros
		<b>RISK MANAGEMENT WORKSHOP</b>
		<b>RIO BRAZIL 94 METRO ASSEMBLY</b>
		<b>METRO OBSERVATORY UTO SINGULARITIES OF PROJECT MANAGEMENT</b>
		<b>METRO REPORT RS SC DEVELOPMENT OF A RS MAINTENANCE PROGRAMME</b>
		<b>METRO REPORT RS SC ADAPTING OLD DEPOT TO NEW ROLLING STOCK</b>
		<b>P1 - Observatory UTO - Database automated metro lines</b>
		<b>P1 - Observatory - Atlas of Automated Metros report</b>
		<b>METRO REPORT OP SC INDICATORS FOR RAIL OPERATING SAFETY</b>
		<b>METRO REPORT OP SC - REAL-TIME OPERATIONAL CONTROL CENTERS</b>
		<b>METRO REPORT FISC T47 - PLATFORM SCREEN DOORS</b>
		<b>METRO REPORT EISS TOPIC 49 VENTILATION</b>
		<b>METRO REPORT EISS TOPIC 47 RETURN CURRENTS</b>
		<b>METRO REPORT EISS TOPIC 41 MAINTENANCE INDICATORS</b>
<b>METRO REPORT EISS SC TOPIC38 ASSETS LIFE EXTENSION</b>		
<b>METRO REPORT SC EISS TOPIC50 SYSTEMS ENGINEERING</b>		
<b>METRO EISS SC REPORT TOPIC 46 REMOTE CONDITION MONITORING OF ASSETS</b>		

# DRAFT OVERVIEW OF TOPICS FROM UITP WORK PROGRAMME 2015-2017

<b>4. Globalisation and emerging players</b> <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>	rail operational excellence	<b>NGTC</b> <b>Next Generation of Train Control Systems for a Sustainable Surface Transport and Successful Modal Shift</b>
		European regional and suburban rail landscape
	Waterborne operational excellence	knowledge brief on waterborne operating profiles
		workshop on waterborne integration
		<b>PIER BUILDING AND MAINTENANCE REPORT</b> <b>ENERGY EFFICIENCY AND PROPULSION SYSTEM IN WATERBORNE TRANSPORT WORKSHOP</b>
	Bus operational excellence	bus operators basic numerical indicators (2015:12), KPIs / benchmarking
		knowledge brief on passenger information
		<b>EBSF2 – European bus System of the Future</b>
		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	

# DRAFT OVERVIEW OF TOPICS FROM UITP WORK PROGRAMME 2015-2017

<b>4. Globalisation and emerging players</b> <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>	PT contracts	PT contracts: tender structure publication
		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

<p><b>5. Climate change, air pollution and energy</b></p> <ul style="list-style-type: none"> <li>- <i>Reducing the carbon footprint and pricing carbon</i></li> <li>- <i>Improving air quality</i></li> <li>- <i>Enhancing resiliency of public transport infrastructure</i></li> <li>- <i>Advocating the impact of public transport on health</i></li> <li>- <i>Promoting active modes of transport</i></li> </ul>		<p>Eurasia electric transport regional conference, Minsk (2015/09)</p>
		<p><b>E-bus plug standardisation working group (05/2017)</b></p>
		<p><b>Elliptic - Optimising existing electric infrastructure and rolling stock in order to reduce costs and energy consumption</b></p> <ul style="list-style-type: none"> <li>• 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</li> <li>• smart energy management upgrade of electric public transport systems for rail</li> <li>• multi-purpose use of electric public transport infrastructure, e.g. for safe recharging of non-public transport vehicles.</li> </ul>
		<p><b>ZEEUS – electric buses</b></p> <p><b>eSORT brochure</b></p>
		<p><b>METRO REPORT EISS SC USE OF LEDS FOR LIGHTING METRO STATIONS (2016/06)</b></p>
		<p>FTSO Report Brochure Booklet (2016/09)</p>
	<b>health</b>	<p><b>2015 HEALTH AND TRANSPORT POLICY BRIEF</b></p>
		<p><b>(Financial) contribution to Slocat (2016/7)</b></p>
		<p><b>seminar FLOODING PREPAREDNESS AND MITIGATION IN URBAN RAIL (date ?)</b></p>
		<p><b>Guideline on materiality and enterprise risk management</b></p>
		<p><b>Alignment of the Charter’s Sustainability Reporting Framework to the UN Global Compact and OECD reporting framework</b></p>
	<b>Sustainability charter to fight climate change</b>	<p><b>Alignment of the Charter’s Sustainability Reporting Framework to European Directive 2014/95/EU</b></p> <p><b>Reporting guide translating the GPC for public transport professionals with support of the C40 Cities</b></p> <p><b>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</b></p> <p><b>the implications of COP21 and the post 2015 development agenda for public transport</b></p>

# DRAFT OVERVIEW OF TOPICS FROM UITP WORK PROGRAMME 2015-2017

<b>6. Human resources: succeeding the transition</b> <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

### TYOLOGY OF UITP SERVICES/DELIVERABLES

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



## **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**

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

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

**Modern feeding and supplying infrastructure**

**Modern Trolleybus and e-grid bus fleet**

**Technical specifications. Tender and SORT requirements**

**Latin America**

**Per Gunnar ANDERSSON**

**Thomas FONTAINE**

**Michael PANDION**

**Daniel STEINER**

**Zdenek VYTOUS**

**Adam ZIELINSKY**

**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 KALIEDIN  
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

<b>Region</b>	<b>Number of enterprises (trolleybus cities)</b>	<b>Number of trolleybuses</b>
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
<b>Total</b>	<b>301</b>	<b>27 814</b>

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 measurement instruments and all electrical conditions of the tested vehicle and the measurement 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

