Monitoring quality based on the CEN 13 816

Contractual relationship between authority and operator in Prague

9th and 10th October 2008, Prague

TRANSPORT ORGANISATION IN THE CENTRAL BOHEMIAN AREA (CBA)

(REGION OF PRAGUE CAPITAL + CENTRAL BOHEMIAN REGION)

Central Bohemian Region (CBR)

At this time about 347 communes in CBR have contracts about partnership with ROPID

City of Prague

Local Public Administration → Prague City Council

CBRIT

PIT

ROPID

Regional Organizer of Prague Integrated Transport (PIT)
working as an organising authority
Type of organization municipal "contributory" organization

Prague Public Transport Company Co.Inc.

(100% City of Prague owned)
Integrated network that provides services to 100% of inhabitants of Capital of Prague by:
METRO
TRAMWAYS
BUS including regional bus routes
FUNICULAR

Czech Railways

(100% state owned)

211 rail stations are in PIT (Prague Capital + CBA)

P + R facilities

Private BUS Companies

(Number 14)

PIT area includes greater part of CBA, concretely Prague Capital and part of CBR

Public Service Contract for provision of transport services within the area of the capital city of Prague

- „Contracting in urban public transport“
  European Commission – DG TREN report 2008
- Appendix: Contract Table 26
  Prague (CZ): Direct award to public operator
- Main caracteristics:
  - contract for the urban PT network within the area of The Capital City of Prague (1.2 million inhabitants)
  - about €274 mill./year for the period 2004-2007, new one for 2008
  - the public operator submitted to both cost and operational risk
  - however, the contractual amounts are renegotiated every year limiting the risk to operator

Contracting in urban public transport

Table 2: Risk allocation and awarding: overview

			Risk Allocation to the operator		
			Limited risks	Production cost risk	Production cost risk and revenue risk
Awarding	Direct award to publicly-owned operators		• Prague Large BTM Negotiated / Negotiated	• Krakow Large BT Constructive / Constructive • Innsbruck Medium BT Constructive / Constructive • Rome Large BTM Negotiated / Negotiated	• Amsterdam Large BTM Negotiated / Negotiated • Barcelona Large BM Negotiated / Negotiated • Brussels Large BTM Negotiated / Negotiated • Budapest Large BTM Negotiated / Negotiated
	Competitive award to independent operators	According to negotiated procedure		• Dublin Large T Constructive / Negotiated • Gifhorn 1 Small B Constructive / Constructive • London Bus Large B Constructive / Constructive • Oviedo Small B Constructive / Negotiated	• Dijon Medium B Negotiated / Negotiated • Gifhorn 2 Small B Negotiated / Negotiated • London DLR Large T Constructive / Functional • Lyon Large BTM Negotiated / Negotiated • Parla Medium T Constructive / Negotiated • Porto Large M Constructive / Negotiated • Santiago Medium M Negotiated / Negotiated • Trieste Medium M Constructive / Functional
		According to multi-criteria procedure		• Elmshorn Small B Functional / Negotiated • Frankfurt Large B Constructive / Constructive • Halmstad Small B Constructive / Constructive • Munich sub Medium B Constructive / Constructive • Stockholm Large B Constructive / Constructive • Warsaw Large B Constructive / Constructive	• Grenland Small B Functional / Functional • Haarlem Medium B Functional / Functional • Manchester Medium B Constructive / Constructive • Sondrio Small B Functional / Negotiated • Sundsvall Small B Constructive / Functional • Wittenberg Small B Functional / Negotiated

Prague (CZ): Direct award to public operator

Contract

Table 26

	Main description	Remarks and variations
General description of the contracting parties	♦ Authority: ROPID: Regional Organiser of Prague Integrated Transport (PIT) is responsible towards the municipality and state authorities. Its task is to organise and control public transport. ROPID is authorized by the Municipality to represent the Municipality in all matters related to public transport contracting, in particular in relation to the operator. ♦ Operator: DPP - Dopravní podnik hl. m. Prahy, akciová společnost (Prague Public Transit Co. Inc.), owned (100%) by the Prague Municipality.	♦ ROPID must, when requested by the Municipality, submit a report within a reasonable time period and/or regularly submit a report on its activities or the operator's activities. ♦ ROPID was established in 1993 and its staffing actually emanates the public operator.
General description of the contract type	Contract for the operation of the bus, tram and metro network in the Capital City of Prague (limited risk for the operator). The contract has been established for 4 years, but the transport supply and the price agreements are renegotiated every year.	Preliminary professional estimate of demonstrable loss for the period of 2004-2007 shall be paid by the Transport Authority from state funds through the budget of the Capital City of Prague.
Awarding procedure	Direct award.	The contract is based on the European service quality standard in public transport EN 13816:2002.
Regime for Public Service Obligations	Contract.	
Policy goals and contractual goals (strategic level)	♦ A policy "project" lays down the scope of provision of basic and other transport services within the area of the Capital City of Prague. ♦ The contract is concluded for the purpose of providing basic and other transport services within the area of the capital city of Prague by urban public buses and rail.	
Service definition (tactical level)	♦ ROPID develops a network of services ("public passenger transport organization project") giving a list of lines and frequencies to be provided) on the basis of the approved annual plan (which includes the defined public service obligations). The knowledge of the operator (DPP) is used in this process. The operator develops the exact timetable on the basis of this. ♦ The "PIT" fares are determined by ROPID.	The operator is expected to initiate changes to the services where needed, but such changes and amendments to the services at the initiative of the operator must be submitted to approval by the authority.
Service production (operational level)	The operator is responsible for all operational matters relating to service production.	
Regime for changes in production quantities or contract amendments during the contract period	♦ ROPID may request changes in timetable, reroutings and changes of stops. In this case, the operator accepts a modified public service obligation in compliance with the Act and a professional estimate of expected costs and revenues is established, provided that the Municipality and the Transport Authority undertake to pay them. ♦ The professional estimate takes into account the applicable tariff, and the changes agreed.	Substantial changes of transport parameters within the entire network of the Operator may not be applied more than three times in a calendar year.
Ownership	All vehicles and infrastructures are owned by	Investment is carried out in a separate

26 Prague (CZ): Direct award to public operator

Main description	Remarks
Avarding procedure	
Direct award.	The contract is based on the European service quality standard in public transport EN 13816:2002.
Contract price and level of risk	
♦ The expected deficit for 2004 was contractually set at about €274 million/year. ♦ The operator is submitted to a detailed schedule of penalties related to several operational non-compliance items. This penalty amount is however very limited.	♦ Financial risks are primarily at the side of the authority, unless ROPID indicates that the operator has not met the agreements (vehicles-km) in the contract. In that case, the municipality is not obliged to financially compensate the full amount of losses.
Monitoring provision	
♦ ROPID regularly checks the operator's performance (monthly) and is entitled to apply sanctions to the operator for violation of obligations. ♦ ROPID checks whether the realised services corresponds to at least 99,5% of the total negotiated volume of services.	♦ Assessment of contract performance shall be based on transport performance actually supplied in place-km or recalculated to vehicle-km for each transport mode.

Public Service Contract Appendix No.1
Penalty Schedule for Surface Transport

1. Failure to dispatch a vehicle on the route
2. Idle time of the vehicle on the route exceeding 1 hour
3. Noncompliance with timetable and driver's obligations
4. Failures in marking and equipment of vehicles or stops

Public Service Contract Appendix No.5
Other Obligations of Operator

These terms and conditions are in line with the draft European Quality Standard a CSN 13 816

1. Information
2. Journey Time
3. Customer Care
4. Comfort
5. Safety

EN 13 816: 2002

„Transportation – Logistic and services – Public passenger transport – Service quality „definition, targeting and measurement

Numerous aspects of service quality divided into 8 categories :

- **Availability**
- Accessibility
- Information
- Time
- Customer Care
- Comfort
- Security
- Environmental Impact

1.1 Modes

1.2 Network

1.3 Operation

- 1.3.1 operating hours
- 1.3.2 frequency
- 1.3.3 vehicle load factor

designing PT offer

Availability – Designing PT offer in Prague

- Public Passenger Transport Organization Project (PPTOP) – based on the availability quality criterias – see pages 4 and 5 of doc.1
- Contracted offer – year 2004, basis of the compensation for „demonstrable loss“

Subsystem	Type of transport means	Performance in vehicle km (ths)	Performance in place km (ths)
Metro RTS	**Total**	**44 700**	**8 255 300**
Tram including FR	**Total**	**51 878**	**5 706 360**
of which: **BTS-RT**	Trains T3, T6. KT8 D5	45 872	5 045 920
OTS-RT	Trains T3, T6. KT8 D5	5 984	658 240
	Funicular railway	22	2 200
Bus	**Total**	**59 720**	**4 817 515**
of which:	Standard - SD	42 647	2 985 290
	Articulated - A	16 310	1 794 100
	MIDI	70	2 800
	Special regular services	293	7 325
Provision for reroutings due to bus service disruptions in zones P+0*	*	400	28 000
TOTAL DP		**156 298**	**18 779 175**
Such performance is preliminary divided into particular quarters of 2004 as follows:			

Explanatory note: **RTS** – rail transport service (M)
SRS – special regular services
BTS-RT – basic transport services by rail transport
OTS-RT – other transport services by rail transport
* provision for reroutings by disruptions – the volume of its performance is not assessed

(1)

Monitoring of performance – availability/offer

Prague Contract clauses:

- chapter III. - Rights and Obligations of ROPID – point 6
  - „ROPID shall ensure that the total volume of performance corresponds...
    to at least 99,5% of the negotiated volume of services“
- chapter IV. – R and O of Operator – point 13
  - „The Operator shall submit to the Transport Authority, ROPID and Municipality, on a quarterly basis... a financial statement of demonstrable loss...“
- App. No. 5, 1.9
  - „The Operator undertakes to submit to ROPID on the next working day, a „daily Record of PT Services“. Fulfillment of performance based on TTs (plan/reality)...shall be submitted once a month by the Transport section of the Operator

(2)

Monitoring of performance – availability/offer tools (and incentives?)

- Tools – from the PPT´s Daily Records, across Monthly fulfillement of performance records, to Quarterly reports
  - see documents..n° 5 and 6
    - Operational Statement of the tram driver – daily
    - Fulfillement of the Contract with The Capital City of Prague (first half of 2008)

- Incentives to performance – availability

❑ Prague Contract

No incentive

❑ Contract de gestion 2001-2005 entre la région Bruxelles – Capitale et STIB

•Production réalisée – bonus/malus mensuel

- the max. annual bonus or malus amounts, for the production, to € 2.0 million

Monitoring quality based on the EN 13816

In contractual relationship:

- I. Subject of the Contract
  2. This Contract is based on the EN 13816:2002

  - general statement, no other mention in the text
- Appendix No.1 – Penalty Shedule

  incentive = malus?

- Appendix No. 5 – Other Obligations of the Operator
  - very heterogeneous, non structured, mix of conditions
  - 4.16 ▼ !

Service Quality Program

- Established from 1998 and based on the EN 13816:2002
- Developped in close cooperation with RATP and CYQUAL club:

  RATP, STIB TP Genéve, Metro Madrid, BVG, TC Laval
- Standard Management Cards
  - highly structured process – doc. n° 7 and 8

Measurement of performance
Types of measurement : 6 examples from EN 15140 : 2006

	Continuous	Sample
Surveyors	Availability of buses on the route	Cleanliness on trains Bus cleanliness
Technical means	Phone waiting time at the Customer Contact Center Punctuality of train Services	Punctuality of bus services

Service Quality Standards

Service quality programme – since 1998

- Punctuality/regularity
- Passenger information
- Customer care
- Uniform discipline
- Operability of ticket vending machines *(since 2000)*
- Operability of metro stations equipments for people with reduced mobility *(since 2004)*

- Availability of metro stations *(since 2007)*
- Observance train traffic diagram *(since 2007)*

Standards defined through:

- **Service reference sample**
- **Desired level of achievement**
- **Unacceptable situations**

Measurement of performance

Bernard Averous : „ on ne mesure pas pour savoir, on mesure pour progresser „

- Measurement of the gap vis à vis the objective
- Measurement of conformity and not the average

➢ Tool of corporate culture (new look)

➢ Tool of management

- discussions no more based on feelings
- staff training focused more on service defined in an objective way
- internal partnerships, synergy

Relations between EN 13816 and ISO 9001

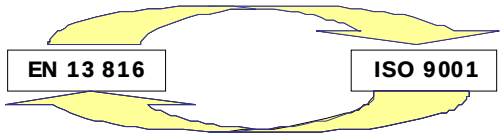
GLOBAL POLICY

Customers' satisfaction

Service Quality

Complementarity

EN guarantees that customer's expectations are taken into consideration



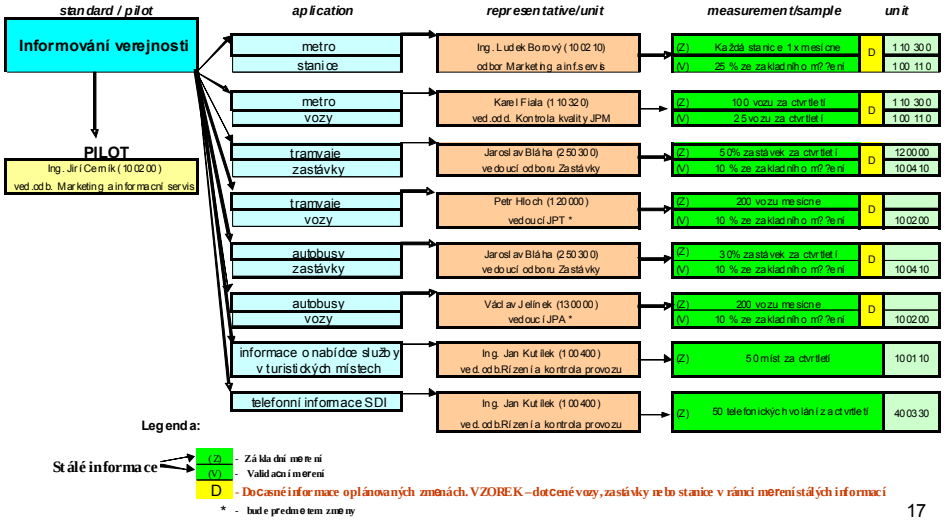
ISO supports sustainability of service quality

ISO 9001 Certifications in PPT

Organizational unit	Certificated activities	Date of first certification	Certification organization
Metro Operation	Public transportation	January 8th, 2007 (line A a C) / June 19th, 2006 (line C)	Lloyd´s Register Quality Assurance
Tram Repairs	Overhauls and upgrading of: - electrical machines and equipment for traction wheeled vehicles - tram bodies, gearboxes and parts for wheeled vehicles	November 5th, 1998	Det Norske Veritas
Bus Repairs	Overhauls and upgrading of diesel engines, overhauls of compressors, gearboxes, axles and break, air and electric components for motor vehicles	November 15th, 1999	Det Norske Veritas
Technical Inspection Station	Operating of Technical Inspection Station (busses and trucks)	January 24th, 2006	Det Norske Veritas
Supplies	Purchasing, storage, stock out of material, replacement parts, products and working clothes for overhauls and operating needs	January 15th, 2002	Det Norske Veritas

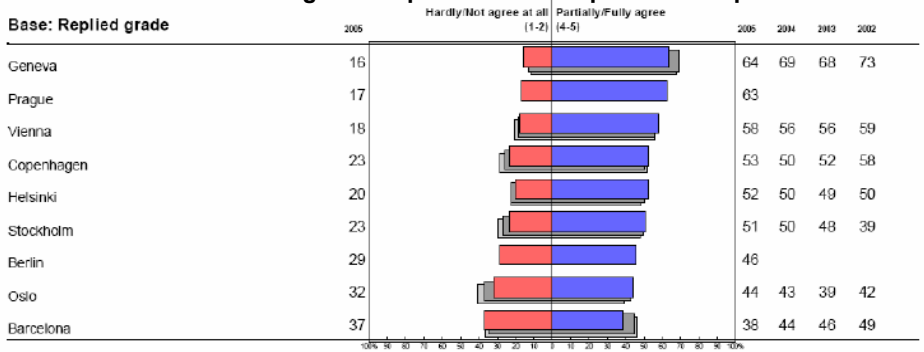
How to unlock human potential

... and involve staff in service quality



BEST

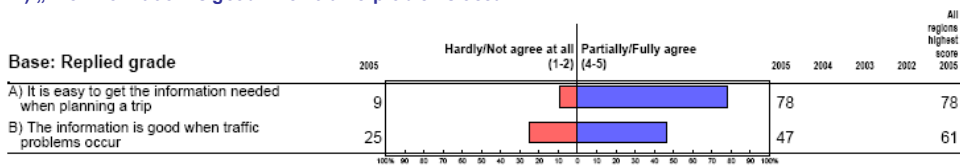
Benchmarking in European Service of public Transport



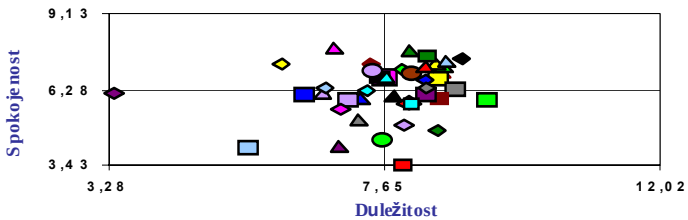
Dimension contains two questions:

A) „It is easy to get the information needed when planning a trip“

B) „The information is good when traffic problems occur“



Anketa Spokojenosti



Dopravní podnik hl. m. Prahy, akciová společnost

Počátek 2002

Swot analýza	Kritéria	Spokojenost	Duležitost
Nutno jednat!	Ochrana pred trestnou činností	3,51	7,94
	Vhodnost systému PID pro zdravotně postižené	4,48	7,60
	Obsazenost spoju (pretíženost)	4,82	8,48
	Preference hromadné dopravy pred IAD	4,96	7,96

- 42 KRITÉRIÍ VYBRANÝCH PODLE PŘÍLOHY A (EN 13816)
- SPOKOJENOST A DULEŽITOST VE STUPNICI OD 0 DO 10
- 94 DOTAZOVANÝCH STUDENTŮ FD ČVUT
- MODIFIKACE SWOT ANALÝZY
  - identifikace kritérií ⇒ s nadprumernou / podprumernou spokojeností a duležitostí
  - prumerné hodnoty 6,28 SPOKOJENOST
    7,65 DULEŽITOST

Analysis of the Survey on Information supply provided by PPT to foreign visitors

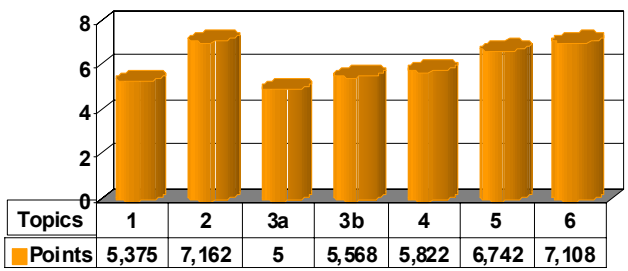
Topics asked

1. Satisfaction of Information supply at the place of arrival
2. Understandability of Schemes and timetibles provided

3a. Clearness of Ticket fare types

3b. Clearness of the usage of the vending machine

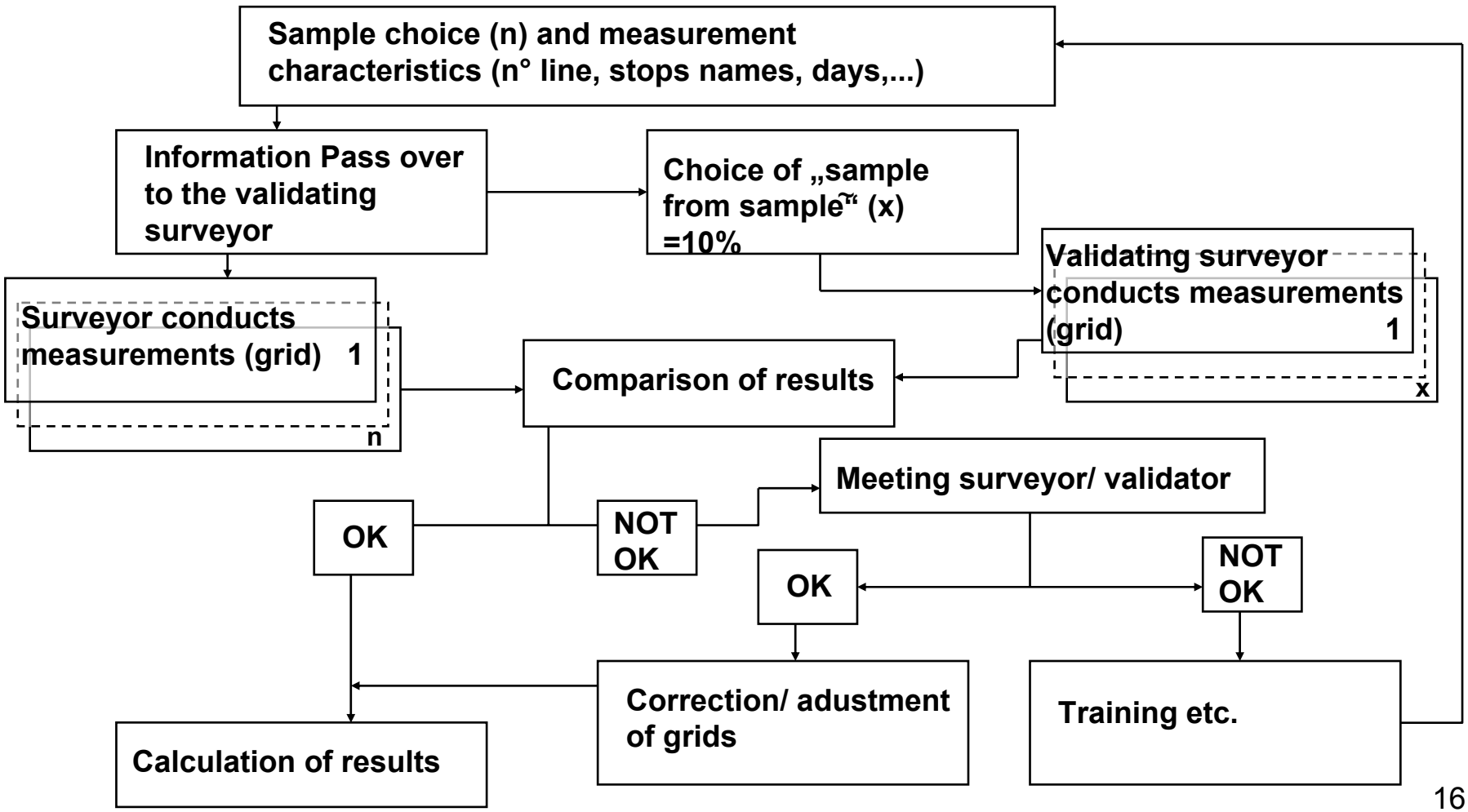
4. Understandability of verbal announcements of station/stops
5. Clearness of indications of directions of Metro/tram/bus
6. Indicators of directions leading out of the metro tunnels



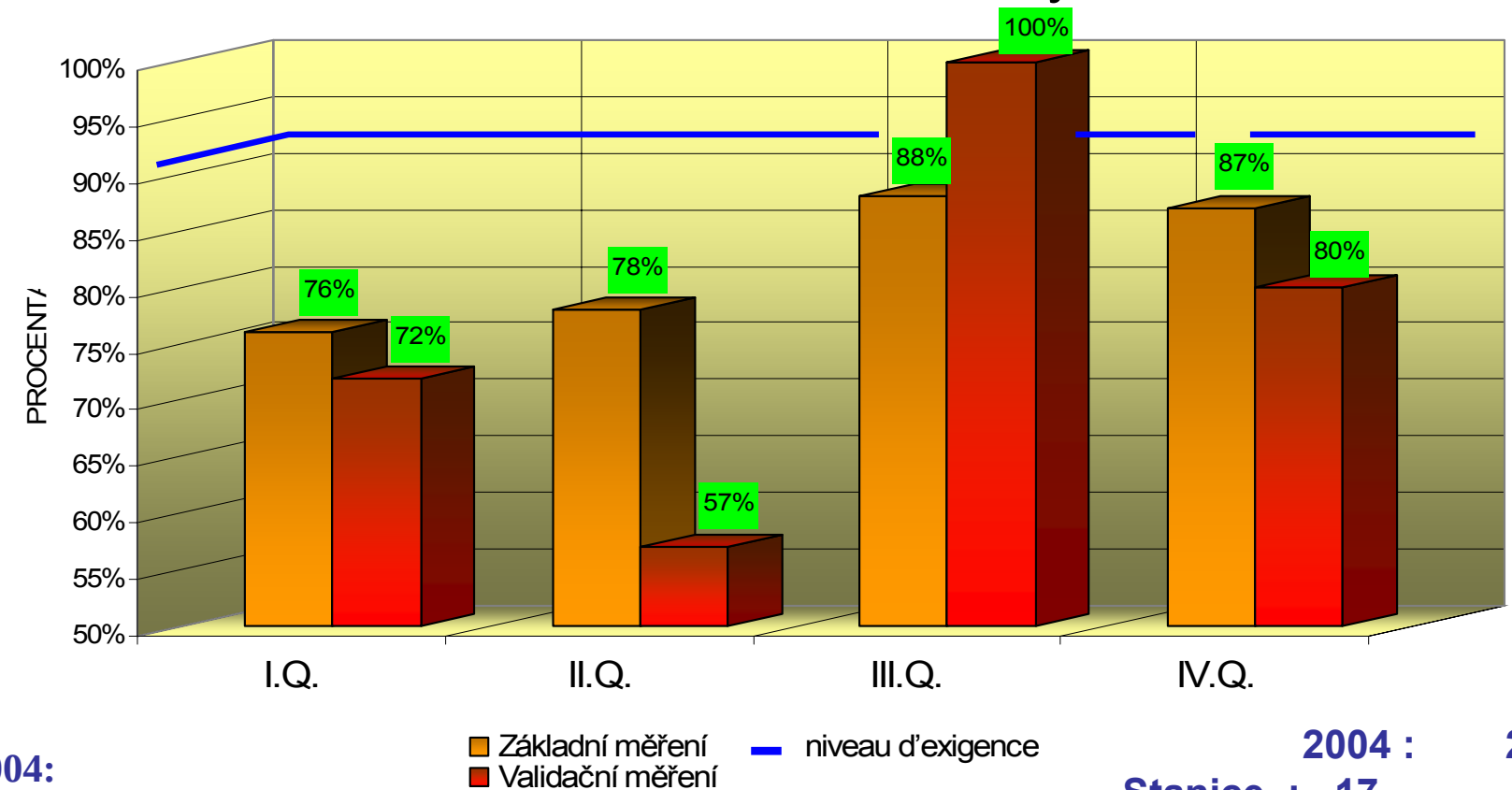
Scale: 1-10
very bad satisfaction – very good satisfaction

Method of measurement and validation

Objectif: The process to guarantee, that the measurements are realised in conformity with the method desribed in „standard cards“, in an objective way



Operability of metro stations equipment for people with reduced mobility



	2004 :	2008 :
Stanice :	17	34
Zařízení :	22	45

2004:
Výrazná zlepšení
Problém : vandalismus
Zamýšlená opatření : opatření antivandalismus, internetové stránky, informační kampaň

Incentives in contracts – STIB and RATP, CYQUAL partners (1)

For production STIB

Production réalisée – bonus – malus mensuel				
Production		Différence entre production réalisée en théoritique	Aplication de la franchise	Bonus-malus attribué
Théorique (en%)	Réelle (en%)			EUR
100%	100%	0%		166.667
100%	99%	-1%		166.667
100%	98%	-2%	0%	166.667
100%	97%	-3%	-1%	100.000
100%	96%	-4%	-2%	33.333
100%	95%	-5%	-3%	- 33.333
100%	94%	-6%	-4%	-100.000
100%	93%	-7%	-5%	-166.667
100%	92%	-8%	-6%	-200.000

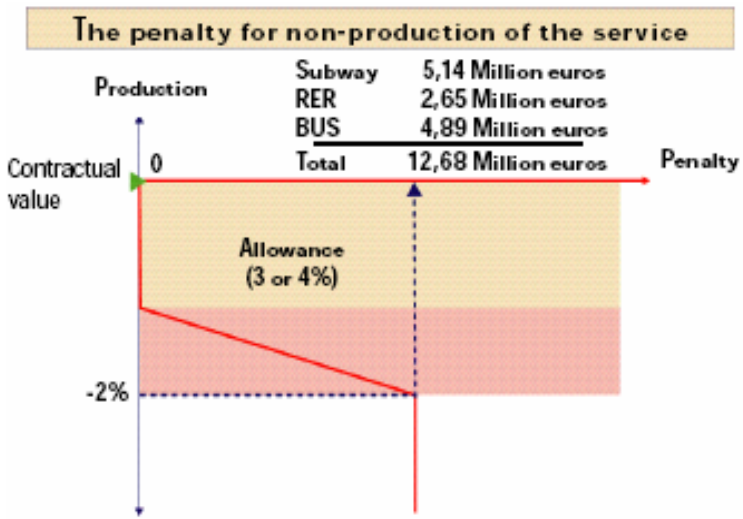
-max. bonus or malus annual
2.0 million €

RATP

The penalty for non-production of the service

max. annual penalty

12.68 million €



Incentives in contracts (2)

For Service Quality Indicators

STIB

Pourcentage estimé de clientèle bénéficiant d´un service certifié CEN Geraamd percentage klanten dat een CEN-gecertificeerde dienst genleten				
Échéance	fin 2002 end	fin 2003 end	fin 2004	fin 2005
Objectif	20%	50%	80%	100%
Seuil minimal	10%	35%	65%	90%

Areas for certification:

- bus routes
- tram routes
- metro routes

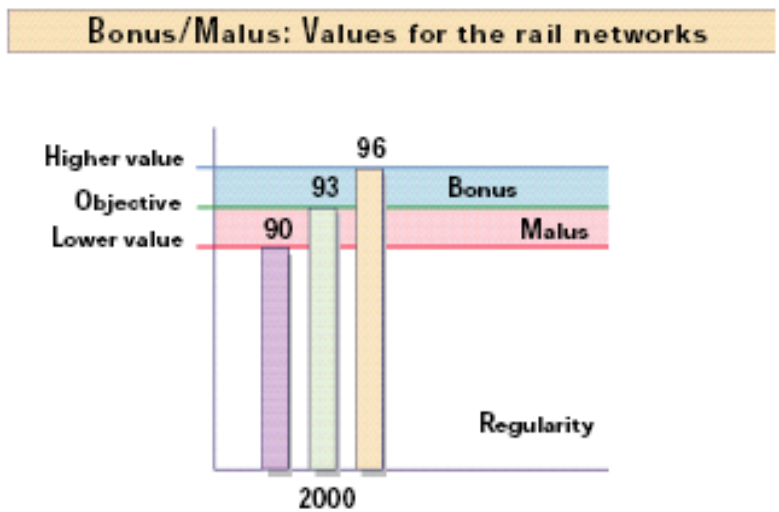
commercial agencies

the max. annual bonus or malus amounts to 3.0 million €

$$\text{Bonus}_t = \frac{\text{réalisé}_t - \text{seuil}_{min.t}}{\text{objectif}_t - \text{seuil}_{min.t}} \times \text{bonus}_{max.t}$$

RATP

- the max annual bonus or malus amounts, for all the Service Quality indicators together (22), to 10.06 million €



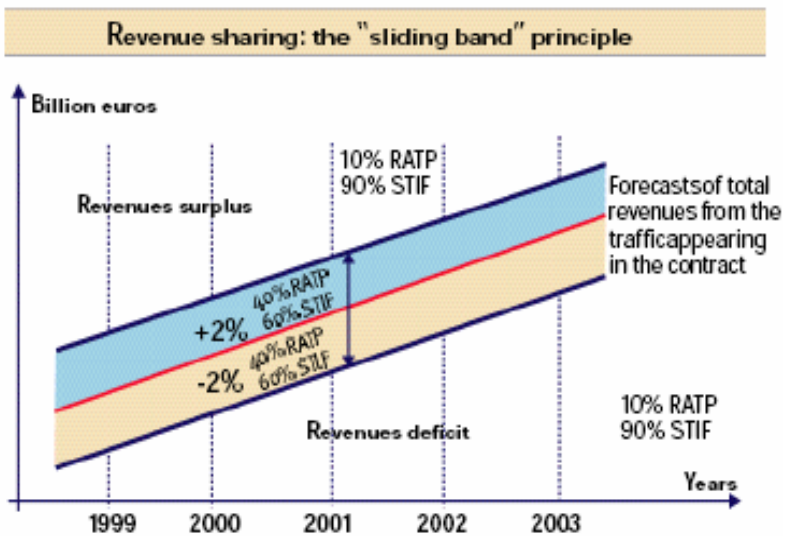
Incentives in contracts (3)

- For financial transparency – STIB

  Task: Model allowing to present the table of revenues and costs splitted to results centres, categories, modes...

  – bonus of max 1.1 million €
  – 31.12.2001 – scheme 100 thousands €
  – 31.12.2002 – system of Financial Transparency 1.0 million €
  – if later (+ x months): B/M = ((18-x)/18) 1.0 million €

- For Revenue sharing: the „sliding band“ principle - RATP



Incentives in contracts – STIB (4)

- Evaluation mechanism – not linked to the system B/M
  - customer barometr (1/ year)
  - institutional, legal framework and contractual environment
  - evaluation of PT system performance
    (service offer, frequency, economical conditions)
    by the means of **benchmarking** between networks
  - evaluation of results of both contractual parties

Barriers

Arguments used from time to time against …

The introduction of quality management

…is expensive, but doesn´t increase the revenues

False

Replies:

- Quality, it is to expend money in different way, non quality is expensive
- Quality is an investment
- Quality helps to improve image and service attractivity, security, allows to decrease the fraud

Quality is not expensive, it is priceless.
Mahatma Gandhi: The Customer

Barriers

- - proposal of the „Transport Act“ (20. August 2007)

  Chapter Transport planning, 33) Quality criteria – based on ČSN EN 13816

  -“working version“ of the „Transport Act“ (July 2008)
  Chapter Public Service Contracts §7 Quality criteria – ČSN EN 13816 not mentioned, (procedural regulations /rules)

  procedural rules (a tripartite referential quality document) - lacking

- EN 13816 – result of operators initiative, not assumed by authorites

- EN 15140 – D E FR CZ

  messung, measurement, mesur, ~~měření~~

- performances of bus competitors

- Mind the Gap

- ready for benchmarking?