



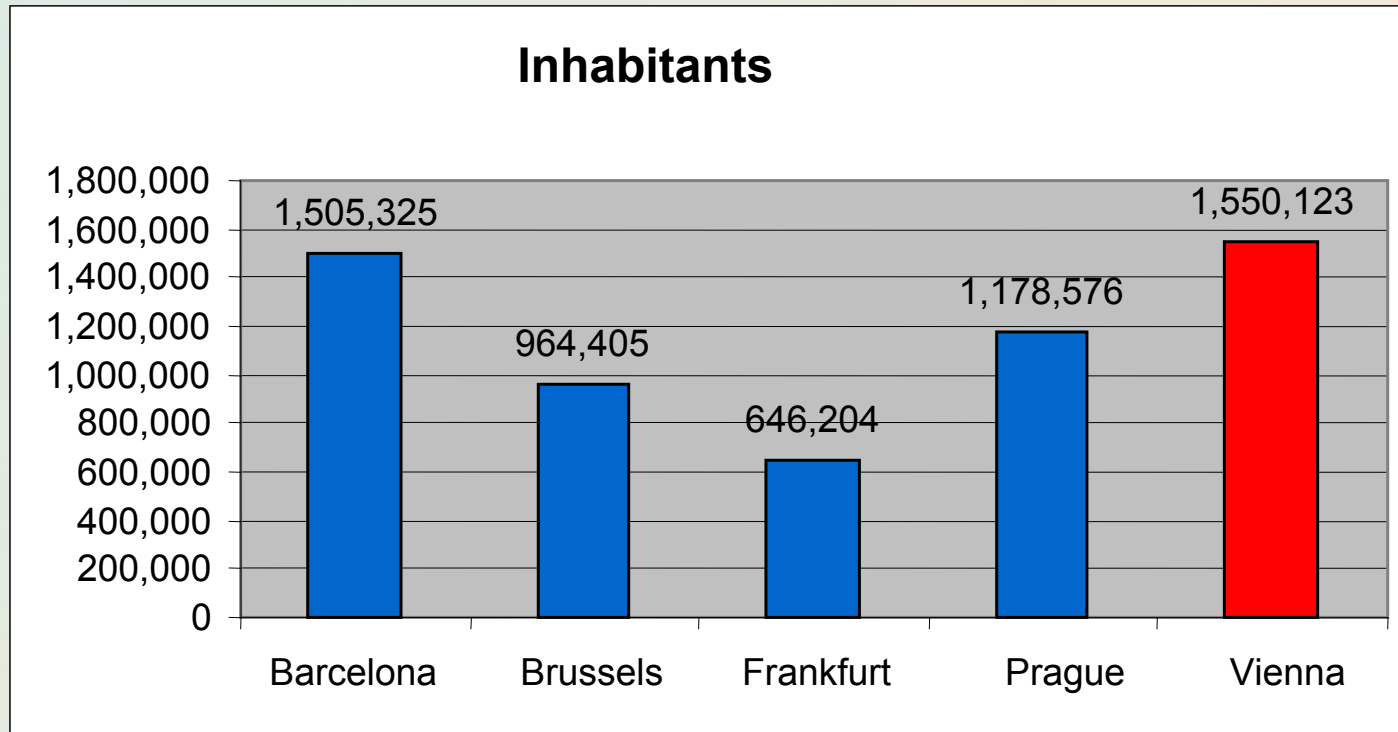
Pro-Active City Cleaning: Practice and Experiences from Vienna

Ing. Franz Bischof
Head of Street Cleaning
Municipal Department 48



Vienna - Facts and Figures

- 1,550,123 inhabitants
- 2,731,360 m streets
- 314,067 m sidewalks
- 307,723 m² pedestrian areas

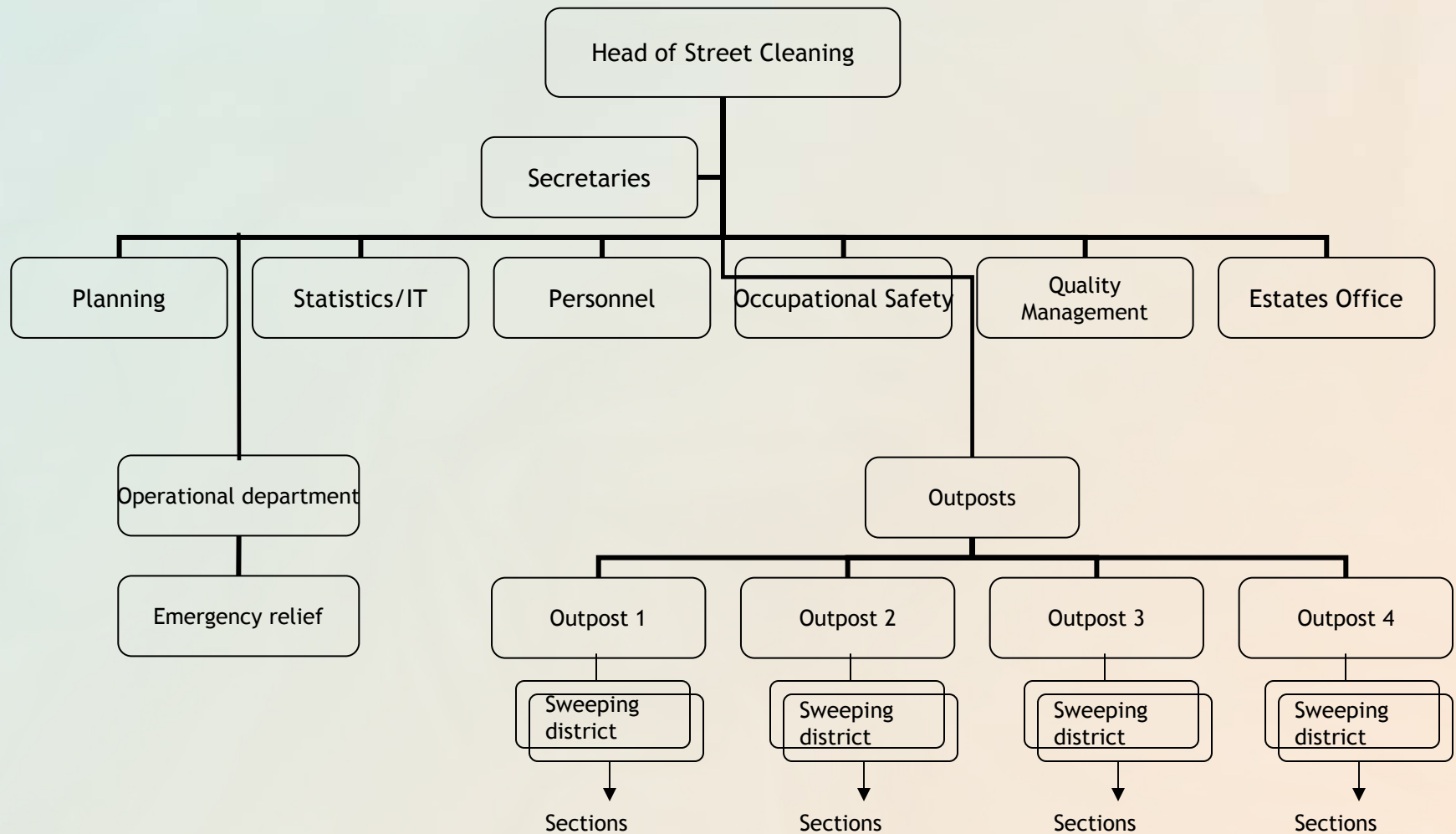


Street Cleaning in Vienna

- Street Cleaning - the operational department 5.0 - belongs to the municipal department 48 (Waste management, street cleaning and vehicle fleet) of the City of Vienna.
- Works closely with the operational departments
 - 1.0 Head of Department
 - 2.0 Internal Services
 - 3.0 Vehicle Fleet
 - 4.0 Waste Management



Organization Chart of Street Cleaning



Organization of Street Cleaning



- 12 sweeping districts
- 67 sections
- Night shift (= 3 sections) is 13th sweeping district

- 517 sweeping areas
- Night shifts in city center, market areas and shopping streets

Organization of Street Cleaning (II)



Organizational hierarchy of the outposts

1 head for each sweeping district



1 supervisor for each section



permanent staff
seasonal workers
temporary staff
workers for social projects

Employees in Street Cleaning

Employees in Street Cleaning (2002)

Administration & management	19
Heads of sweeping districts	13
Supervisors	71
Officers in charge of sites	18
Permanent staff for street cleaning	836
	957
Seasonal workers	181
Man-days of temporary workers	64,072



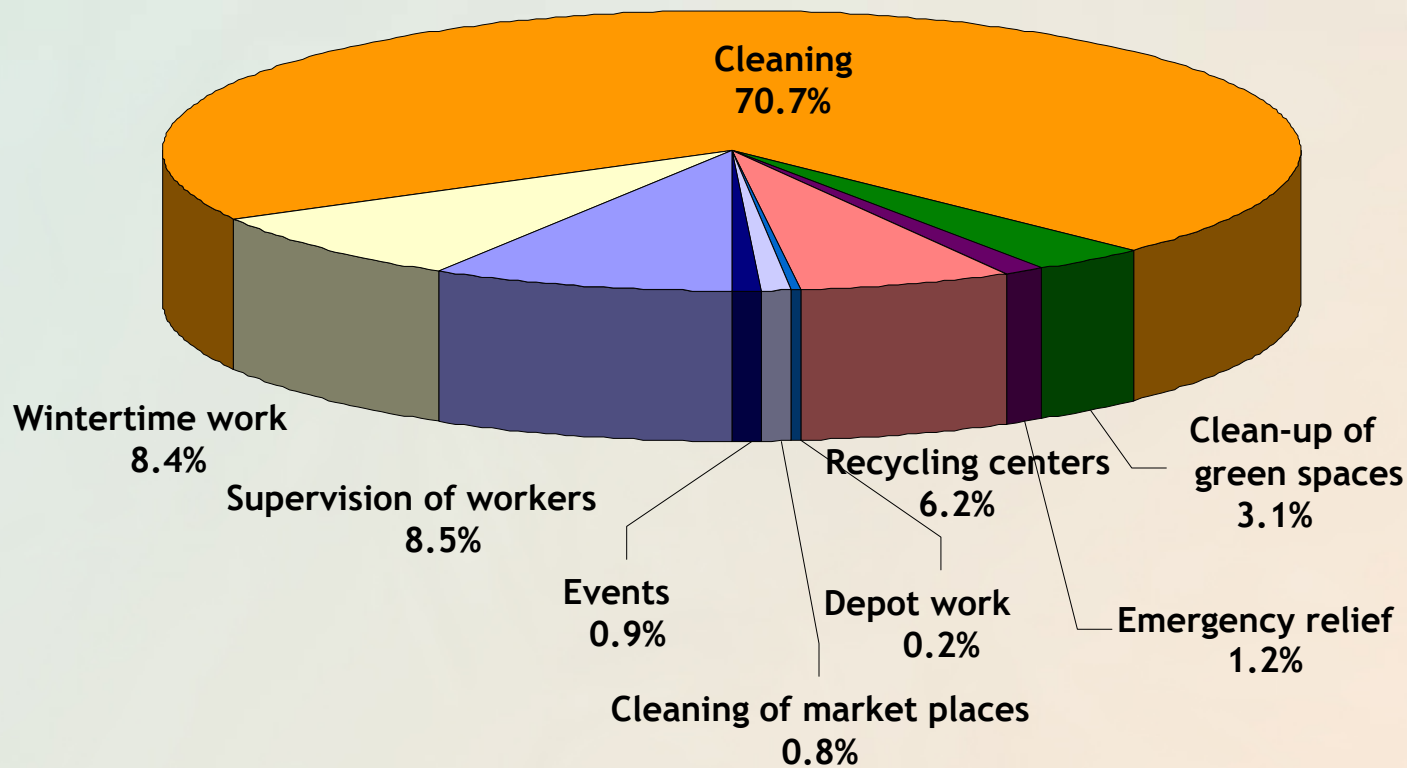
Overview of Responsibilities

Area/Responsibility:	Yes	No	Sometimes
Public roads	X		
Expressways, private roads		X	
Roadside green		X	
Sidewalks			X
Pedestrian zones	X		
Railway stations		X	
Subway stations		X	
Municipal parks		X	
Area around recycling containers	X		



Breakdown of Man Hours

Man Hours of Street Cleaning in Vienna in 2002



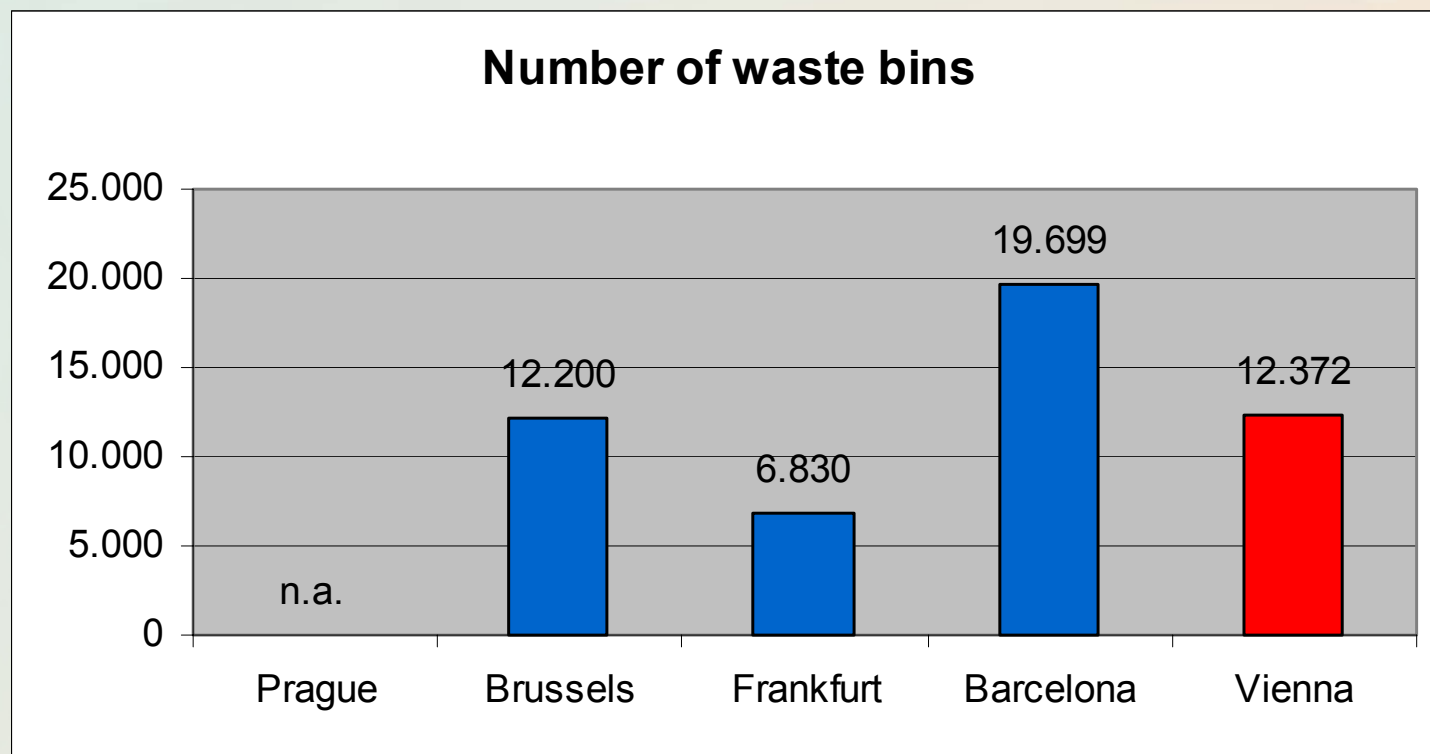
Vehicles/Machines

- Vehicles are provided by the operational department 3.0
- 349 vehicles (predominantly multifunctional vehicles) are available



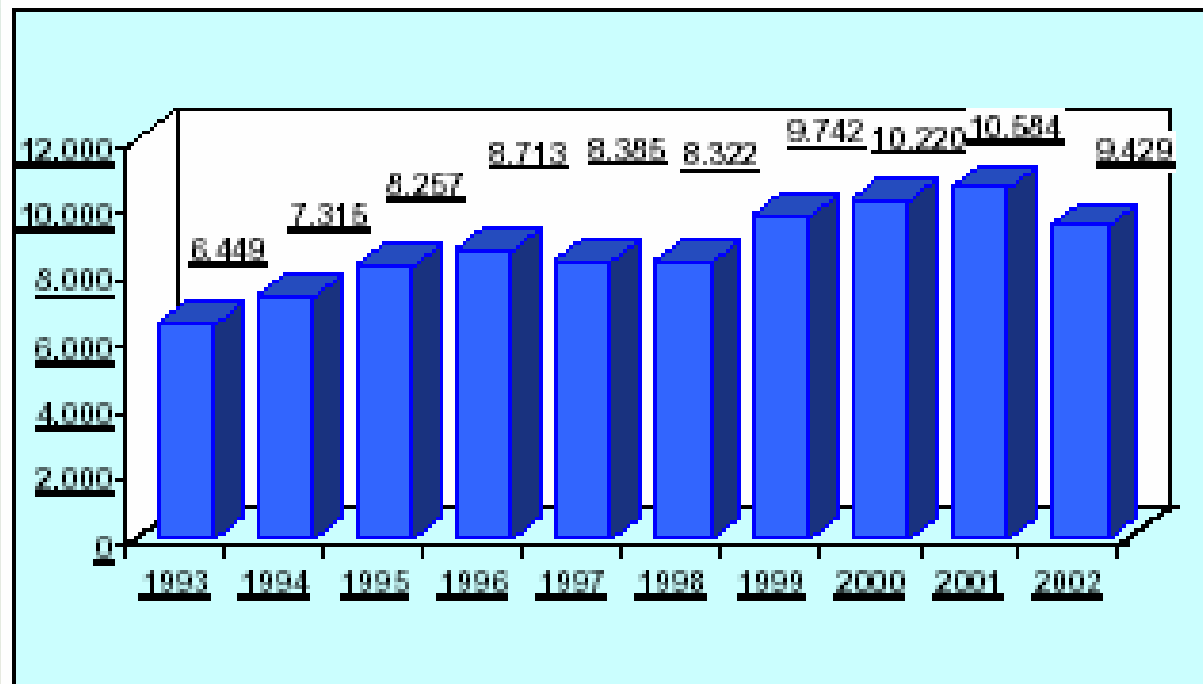
Data on Waste Bins (Comparative chart)

The employees of the MD 48 empty the 12,372 waste bins up to three times a day



Special Problem: Dumping of Refrigerators

Illegally dumped refrigerators (1993 - 2002)



1 March 1993: Refrigerator Ordinance

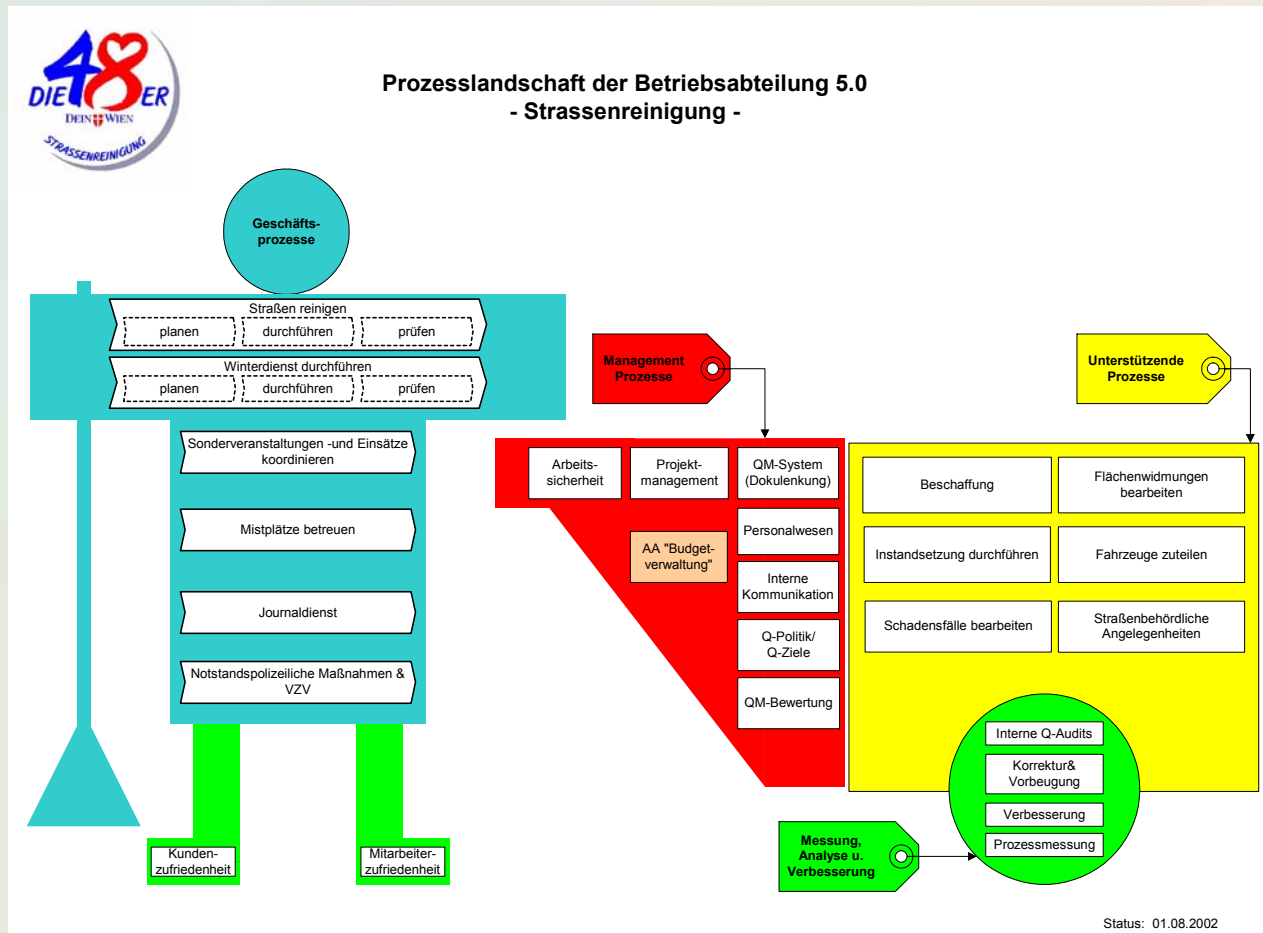
Special Focus of Vienna:

Quality Assurance in Street Cleaning



Quality Control in Operational Department 5.0

- November 1999 - November 2002: ISO 9002:1994 certification
- Since November 2002: ISO 9001:2000 certification



Quality Principles (I)

1. The quality of our services is determined by:

- Customer requirements
- Intended use
- Best available technology
- Legal requirements
- Safety requirements
- and regulations.

2. Quality has to be managed systematically.

3. Quality assurance is the task of every employee.
(→ employee training)



Quality Principles (II)

4. Supervisors shall promote quality awareness among employees.
5. Quality assurance shall be performed at weak spots or in places where mistakes may occur.
6. The objective shall be to align cost consciousness with quality objectives, while at the same time satisfying our customers.
7. Serious quality problems shall be reported immediately to supervisors or the head of the Operational Department 5.0 Street Cleaning.



Quality Principles (I)

1. The main duty of the Street Cleaning Department is to maintain hygiene and traffic safety on streets and sidewalks, taking into account environmental protection and urban planning.
2. We shall perform our services in a flexible and customer-oriented manner within the limits of the law and the ordinances governing the Municipal Departments of the City of Vienna.
3. We shall perform our services in order of priority.
4. We are committed to continuously assessing our supplier relations.

Quality Principles (II)

5. Our quality management system will help us to plan, implement, monitor and improve our business processes and to communicate our services to our citizens in a transparent manner.
6. The highest quality can only be achieved, if all employees in street cleaning work together towards this goal.
7. Employees will be trained to maintain or raise our level of quality in all areas.



Goal Setting



PD ... Process descriptions
JI ... Job instructions

Example

Quality Control

1. The main duty of the Street Cleaning Department is to maintain **hygiene and traffic safety on streets and sidewalks**, taking into account environmental protection and urban planning.

Quality Goals

- 1.1. Providing human resources
- 1.2. Providing technological resources
- 1.3. Selective assessment of the degree of cleanliness

'Measurable Goals in Street Cleaning' to assess the process of street cleaning

- System monitoring the cleanness of streets was developed in the course of the implementation of quality control
- Exceeds the competencies of the street cleaning department
- Since July 2002: spot checks
- Random selection of 2 sites in every district every week

Erhebungsblatt vom												
Beobachter: KW 47/02			Rinnsal ¹⁾	Gehsteig ²⁾	Grünfläche ³⁾	Baumscheiben ⁴⁾	Plakate ⁵⁾	Papierkörbe			ASI	
Bez.	Straße	Onr.	Note	Note	Note	Note	Note	Anzahl ⁶⁾	Sauberkeit ⁷⁾	Füllgrad ⁸⁾	Füllgrad ⁹⁾	Umgebung ¹⁰⁾
01001	SCHOTTENRING	25										
02002	STRASSE DES ERSTEN MAI	53										
03001	STROHGASSE	13										
04001	ARGENTINIERSTRASSE	19										
05001	BRÄUHAUSGASSE	54										

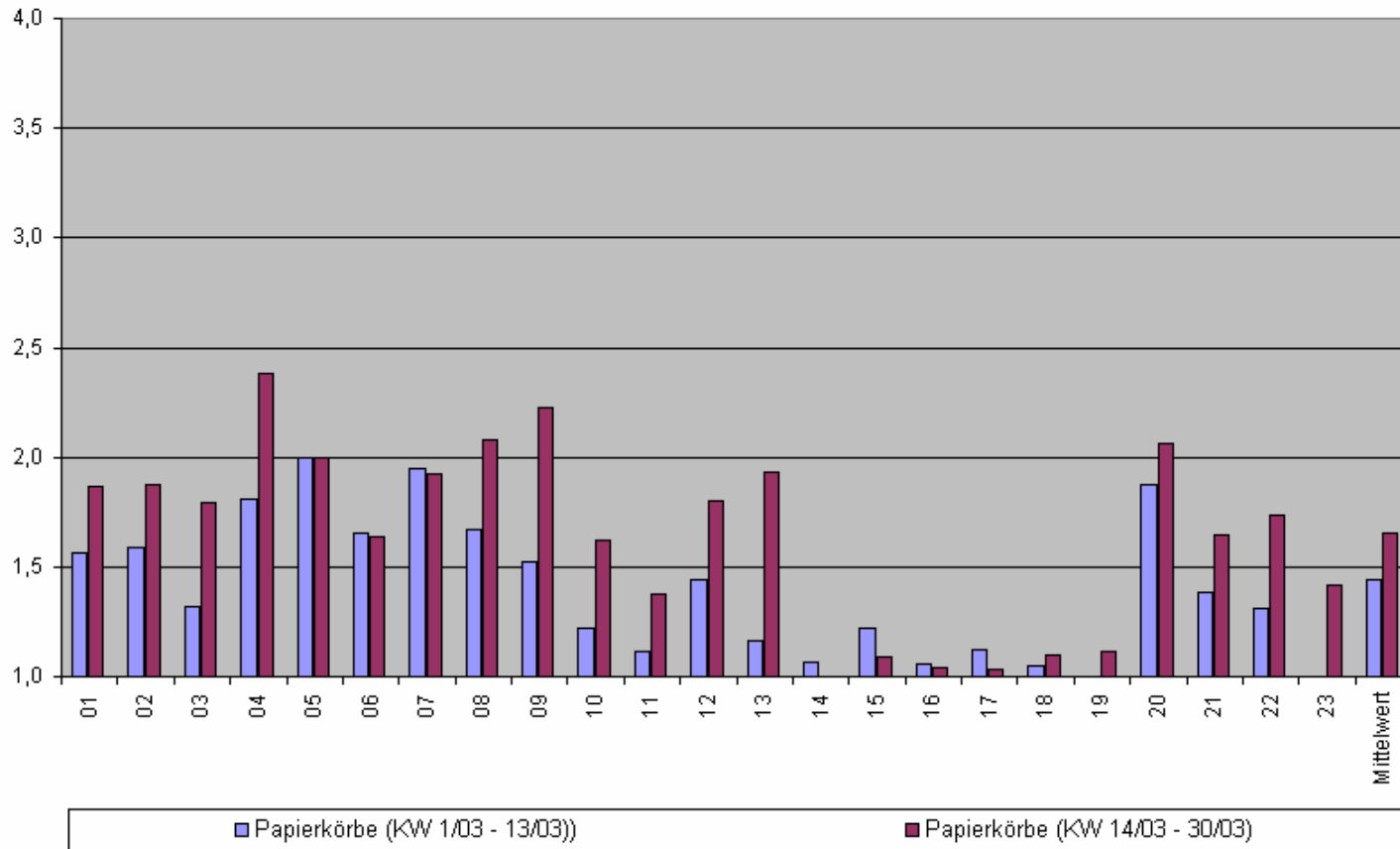


Conducting a Survey

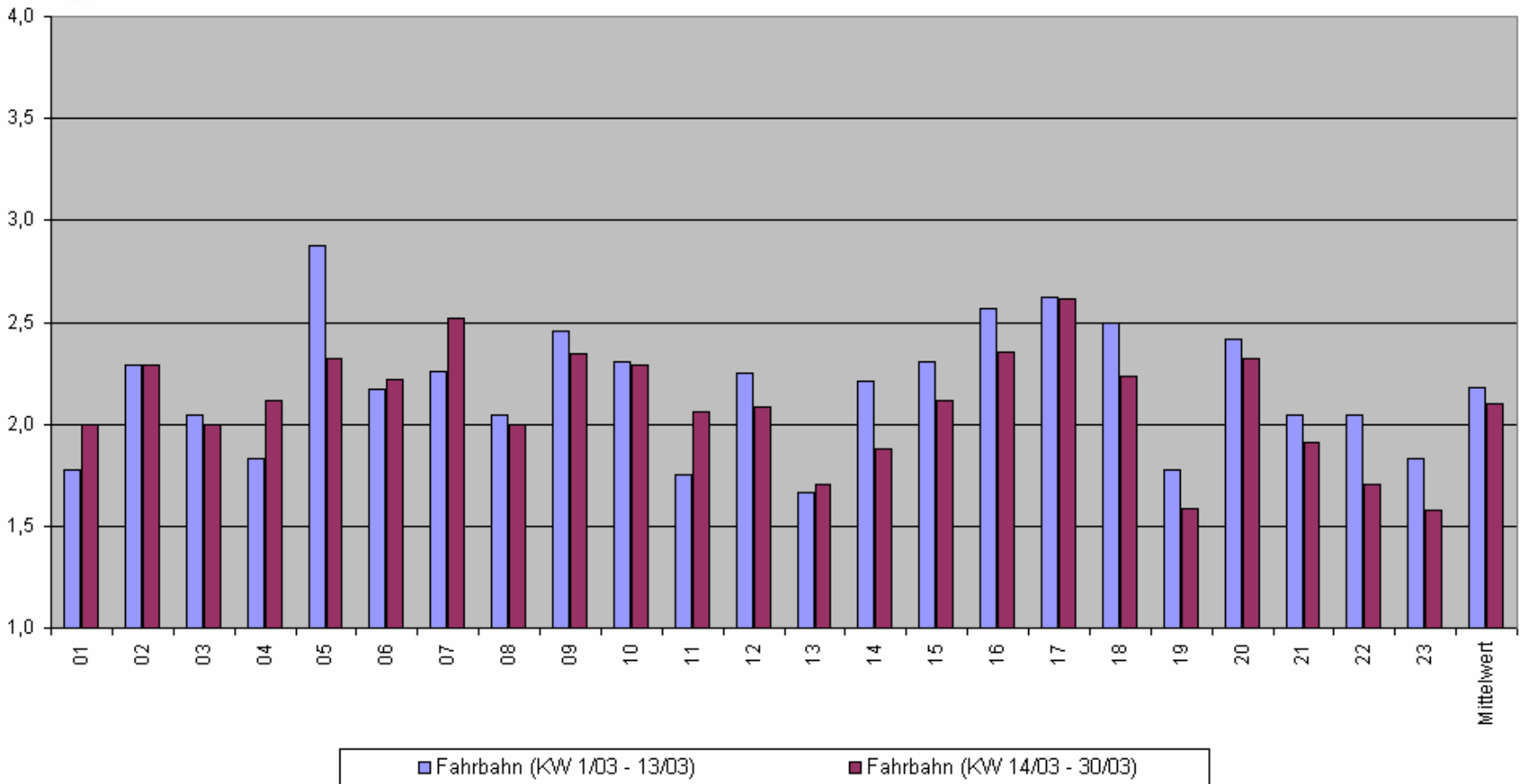
- Examination of
 - Sidewalks
 - Streets
 - Greens
 - Trees
 - Cleanness around recycling containers
 - Degree of utilization of recycling containers
 - Litter bins
- Rating scale
 - 1 - Okay
 - 2 - Only minor deficiencies
 - 3 - In need of improvement
 - 4 - Inadequate
 - 0 - Assessment not possible



Results - Cleanness Litter Bins



Results - Cleanness Streets



Results - Unauthorized Posting of Bills

