NextStation

SMART STATIONS IN SMART CITIES

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STATION SECURITY
FOR STATION BUSINESS:
HANDBOOK FOR EFFECTIVE SOLUTIONS

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UNDER THE HIGH PATRONAGE OF

GOBIERNO DE ESPAÑA | MINISTERIO DE FOMENTO

ORGANISERS

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1. WHY THIS ISSUE?

❖ **Do security issues override those of station management and station business?**

❖ **What should be done to get a "win-win" model?**

Could the BENEFITS for station managers come from the conception OF SECURE PLACE in urban environment?

Station flows without security check

Station flows with security check

2. MAIN IDEAS OF THE UIC STUDY ON STATION SECURITY FOR STATION BUSINESS

❖ To put together security and station managers.

❖ To describe and analyze a variety of station security tools.

❖ To evaluate the impact of each tool and tool sets on different aspects of station management.

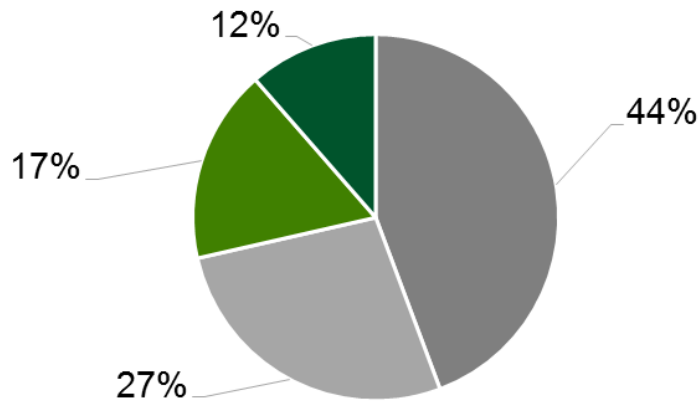❖ To elaborate recommendations for diminishing negative effects from tool use.

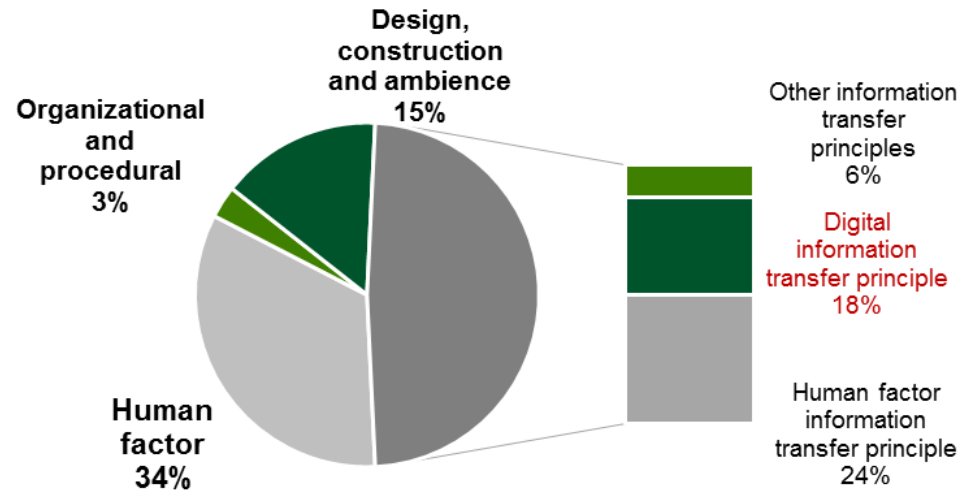**43** questions in 1 survey

32 tools described

16 contributions

3. STATION SECURITY TOOLS DESCRIPTION.

Tools distribution by objectives

Tools distribution by groups and information transfer principle

- Prevention
- Detection
- Response
- Recovery

station security is currently defined by the **role of employees** by **more than 50%** (human factor tools + technical tools with human factor information transfer principle)
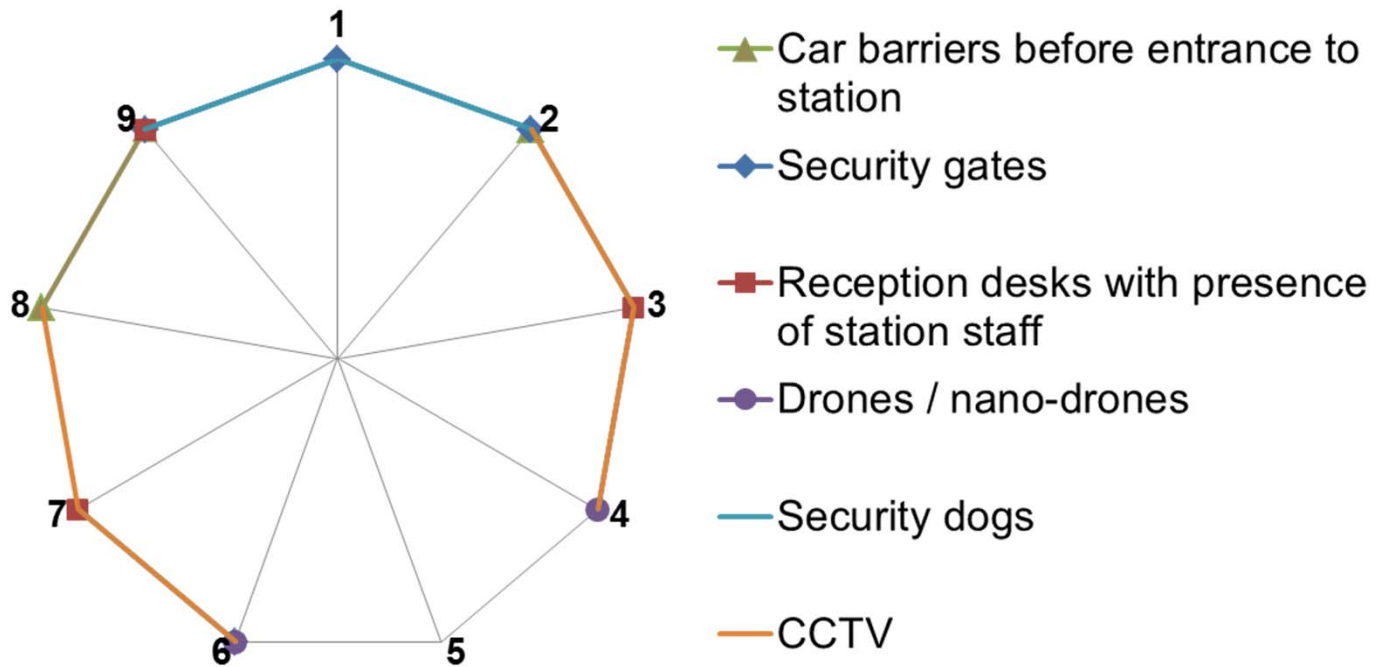
4. STATION SECURITY TOOLS MAP.

| Technical | Human factor | Organizational | Design & Ambience |

CCTV with videoanalytics; 7

Body cameras for staff with direct translation ; 7

Presence of rail (not related to security) staff in special uniform; 5

Presence of security staff (rail security, private security agencies); 7

Reception desks with presence of station staff; 6

Presence of police staff; 7

Video recorders for staff without direct translation ; 5

CCTV; 7

Emergency / help point for passengers at stations; 7

Emergency / help applications for passengers; 7

Passenger screening with special technical means; 2

Detectors of dangerous chemical or biological articles; 2

Security dogs; 7

Audio informing about possible terrorist attacks; 2

Drones / nano-drones; 3

Audio informing about actions with unattended luggage; 3

Video informing about actions in case of terrorist attacks; 2

Explosion-proof containers; 1

Prohibition of alcohol sale at stations; 2

Explosives detectors; 2

Use of transparent materials; 6

Prohibition of alcohol consumption at stations; 2

Classic or calming music; 2

Calming scent at stations; 2

Video informing about security procedures at stations; 7

Pre-designed signage for evacuation; 3

Calming colour scheme in crowded areas ; 2

Car barriers before entrance to station; 1

Audio informing about pickpocketing; 1

The more "useful" is the tool, the larger is the size of the corresponding bubble. The higher is the bubble, the more objectives has the tool.
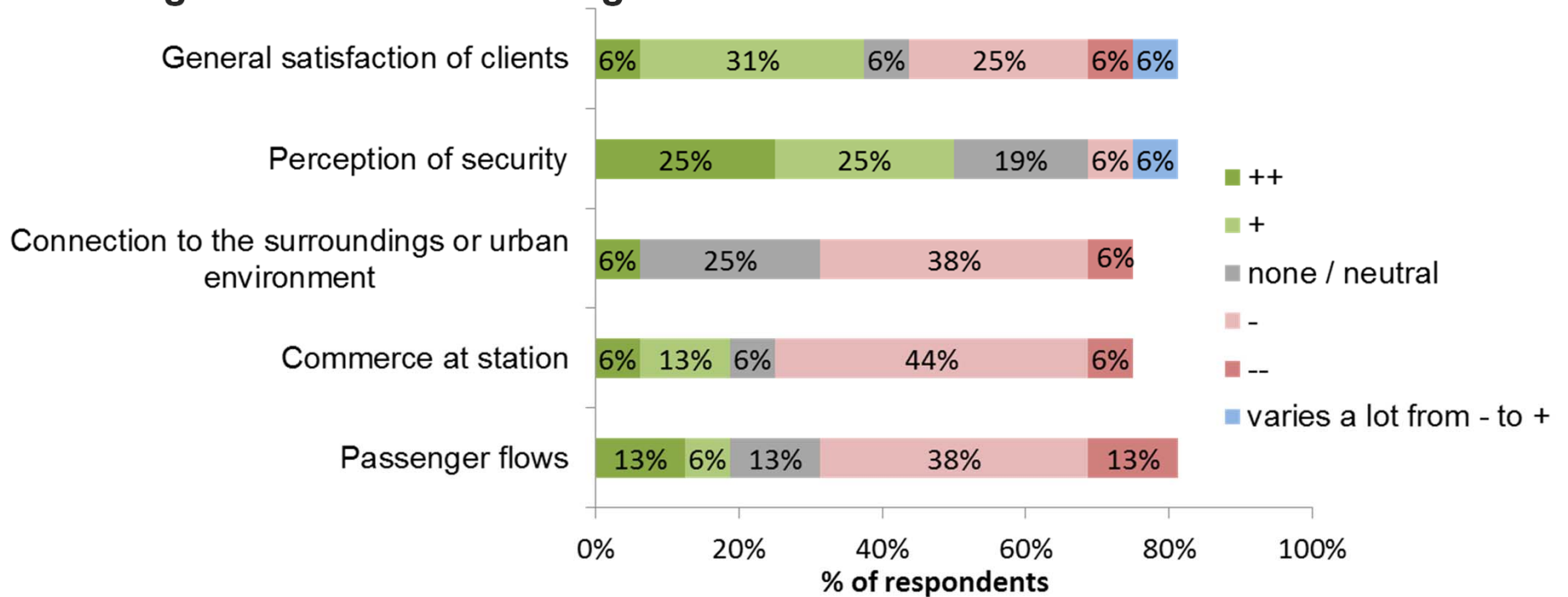
- Luggage screening with special technical means
- CCTV
- Radiometers / dosimeters
- Explosion-proof containers
- Body cameras for staff with direct translation
- Presence of security staff (rail security, private security agencies)
- Emergency / help applications for passengers
- Audio informing about actions with unattended luggage
- Pre-designed signage for evacuation
- Car barriers before entrance to station
- Calming scent at stations

- CCTV with videoanalytics
- Security gates
- Explosives detectors
- Drones / nano-drones
- Video recorders for staff without direct translation
- Presence of rail (not related to security) staff in special uniform
- Audio informing about possible terrorist attacks
- Video informing about security procedures at stations
- Prohibition of alcohol consumption at stations
- Use of transparent materials
- Calming colour scheme in crowded areas

- Passenger screening with special technical means
- Manual metal detectors
- Detectors of dangerous chemical or biological articles
- Security dogs
- Presence of police staff
- Emergency / help point for passengers at stations
- Audio informing about pickpocketing
- Video informing about actions in case of terrorist attacks
- Prohibition of alcohol sale at stations
- Classic or calming music
- Reception desks with presence of station staff

Example of combination of tools covering all clients' route

Legend:
- Car barriers before entrance to station
- Security gates
- Reception desks with presence of station staff
- Drones / nano-drones
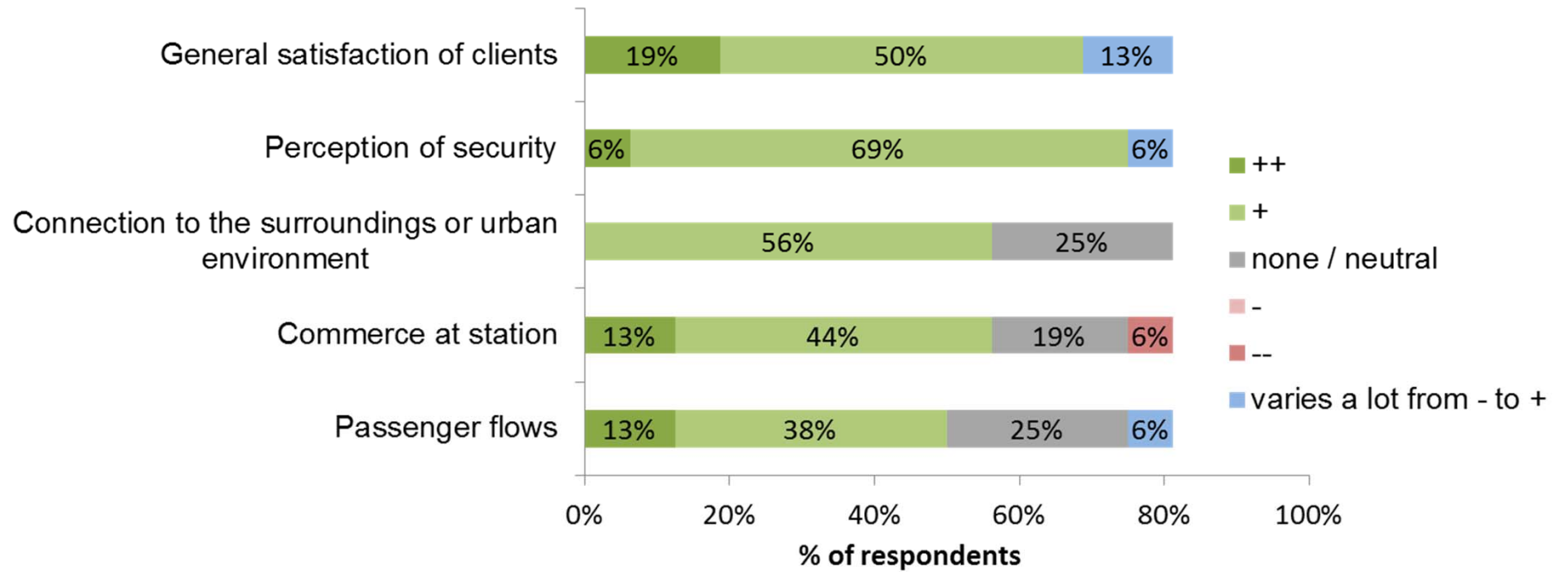- Security dogs
- CCTV

6. TOOLS' IMPACT EVALUATION

Passengers / visitors screening with technical means

6. TOOLS' IMPACT EVALUATION

Reception desks with presence of station staff

7. IF – THEN ANALYSIS

№	Tool	Group	Negative impact on station management areas (marked with "-")					Negative factor(s)	Mitigation measures
			1	2	3	4	5		
1.1	**CCTV**	**hard**				-	-	Uncomfortable feeling of being traced.	Equipment with: a) fixed cameras with wide sweep (like bug eye) which do not require camera turns. b) hidden cameras if area is not too large and do not require wide sweep. Simultaneously clients should be informed about video surveillance.
2.1	**CCTV with videoanalytics**	**hard**						See p.1	
3.1.	**luggage screening with special technical means**	**super hard**	-	-			-	Obligation to put hand luggage (small bags, brief cases, etc.) on the tape.	Use of manual metal detectors for hand luggage or provision of clean baskets.
3.2.			-	-	-		-	Diminish of capacity and consequent delays for passengers.	Multiplication of quantity of tools for larger stations, substitute of stationary equipment by portable equipment for smaller stations. Sufficient size of X-ray machines for large luggage.

1 - Passenger flows; 2 - Commerce at station; 3 - Connection to the surroundings or urban environment; 4 - Perception of security; 5 - General satisfaction of clients

8. STATION TYPES DESCRIPTIONS

1. STRENGTHS	2. WEAKNESSES	3. STATION MANAGEMENT AREAS CONCERNED
❖ Strong focus on prevention at entrance to station / specific area. ❖ Visibility of security measures to clients.	❖ Necessity of dedicated staff and technical means (costs). ❖ Necessity of additional regulations. ❖ Cover of only one or few stages of clients' routes. ❖ Mainly human factor principle of information transfer.	❖ Impact on commercial activities within "clean" areas. ❖ Impact on connection to the surroundings. ❖ Impact on perception of security. ❖ Impact on general level of satisfaction.
4. USABILITY	**5. TYPICAL PROBLEMS**	
❖ During mass events or high level of security threats. ❖ The largest stations. ❖ Station with special services (high-speed / international / night trains / connected to the airports).	❖ Mass gathering at entrances to station / specific areas. ❖ Feeling of anxiety among clients. ❖ Impolite behavior of staff. ❖ Uncomfortable feeling of being traced.	Example of Type 1: stations with super hard tool set

Type 1. Check list and recommendations.

1. Feedback from clients			
1.1.	Do you get feedback from clients?	✓	Continue with p.1.2.
		✗	Organising a feedback from clients on station security and the level of satisfaction with it is recommended.
1.2.	Is the feedback from clients permanent?	✓	Continue with p.1.3.
		✗	Organising a feedback from clients on a permanent basis is recommended.
1.3.	Is the dynamics of feedback neutral or positive?	✓	Continue with other questions.
		✗	Define points of dissatisfaction of clients and causes of negative dynamics
2. Tools			
2.1.	Is special examination equipment for passenger or luggage screening used at this station?	✓	Continue with p.2.2.
		✗	Skip to p.2.6.
2.2.	Is passenger flow fluent (no queues or mass gathering) at check points in normal situations?	✓	Continue with p.2.3.
		✗	Check the quantity of technical means and their performance capacity.
2.3.	Is passenger flow fluent (no queues or mass gathering) at check points in abnormal situations?	✓	Continue with p. 2.4.
		✗	Think over additional substitutive tools (manual or transportable) and corresponding algorithms of their usage.
2.4.	Are there special tracks for persons with pacemakers?	✓	Continue with 2.5.
		✗	Add signs and information. Staff should be informed about substitutive security procedures. Check information for foreign passengers.
2.5.	Are there special tracks for wheelchair and baby carriages users?	✓	Continue with other questions.
		✗	It is recommended organize corridors marked with special signs and to inform staff about substitutive security procedures.
2.6.	Are their video cameras used at this station in public areas?	✓	Continue with p.2.7.
		✗	Skip to p.2.9.
2.7.	Are video cameras well positioned and generally not visible to clients?	✓	Continue with p.2.8.
		✗	Check the appearance.
2.8.	Is there information about video surveillance?	✓	Check the format of information (colours, perception by clients, etc.)
		✗	Check local regulations on this subject.
			Check their locations, also with flows modelling.

3. Staff			
3.1.	Are clients satisfied with staff behavior? (no complaints / high results of surveys)	✓	Skip to p.3.2.
		✗	It is recommended to organize additional training according to staff profiles. It is recommended to organize mystery visitor type checks.
3.2.	Are there staff examination procedures (check of algorithms knowledge) organized on a regular basis?	✓	Continue with p.3.3.
		✗	It is recommended to organize additional training according to staff profiles. It is recommended to organize mystery visitor type checks.
3.3.	Does staff have access to communications allowing to call for help in case of emergency?	✓	Check the knowledge of procedures.
		✗	It is recommended to organize easy communication channels.
3.4.	Can security staff provide useful information for station clients or redirect to correct staff?	✓	Check the knowledge of procedures. Check information for foreign passengers.
		✗	It is recommended to add this function.
4. Station business and security perception			
4.1.	Does station manager know how clients perceive the level of security at this station?	✓	If perception is negative, check other questions.
		✗	Check questions from part 1.
4.2.	Are clients informed in advance about restrictions at stations (consumption of alcohol or similar) and security procedures?	✓	Check the information format and segments cover.
		✗	It is recommended to organize advanced informing.
4.3.	Can customers reach commercial premises without restrictions or barriers?	✓	Check p. 4.1.
		✗	Check p. 2.2. and p. 4.2. It may be recommended to promote the idea of station as a place for secure pastime and shopping.
4.4.	Are there cultural or festive events being held at this station?	✓	Check feedback from clients.
		✗	It is recommended to organize cultural events to promote stations as parts of urban environment and secure places within the cities. Check the opportunities.

Type 2. Check list and recommendations (only specific points for this type are presented).

1. Feedback from clients			
1.1.	Do you get feedback from clients?	✓	Continue with p.1.2.
		✗	Organising a feedback from clients on station security and the level of satisfaction with it is recommended.
1.2.	Is the dynamics of feedback neutral or positive?	✓	Continue with other questions.
		✗	Define points of dissatisfaction of clients and causes of negative dynamics
2. Tools			
2.1.	Is there audio / video informing about threats at this station?	✓	Check format and content with psychologists or behaviorists. Check feedback from clients. Check information for foreign passengers
		✗	Skip to p.2.2.
2.2.	Is there audio / video informing about actions with unattended luggage at this station?	✓	Check format and content. Check information for foreign passengers
		✗	Check the necessity.
2.3.	Is there audio / video informing about security procedures at this station?	✓	Check format and content with psychologists or behaviorists. Check feedback from clients. Check information for foreign passengers.
		✗	Check the necessity.
2.4.	Is there special calming colour scheme used at this station?	✓	Check feedback from clients. Check feedback from psychologists or behaviorists.
		✗	Skip to p.2.5.
2.5.	Is there special calming music used at this station?	✓	Check feedback from clients. Check feedback from psychologists or behaviorists.
		✗	Skip to p.2.6.
2.6.	Is there special scent used at this station?	✓	Check feedback from clients. Check feedback from behaviorists. Check against allergens.
		✗	Skip to p.2.7.
2.7.	Are there special transparent materials used at this station?	✓	Check if explosion-proof. For rubbish-bins check appearance.
		✗	Check the necessity.
			Check influence on passenger flows. Check feedback from wheelchair users,

9. RECOMMENDATIONS AND CHECK LISTS

2. Tools		Please, choose your answer	Recommendation
2.4.	Are there special tracks for persons with pacemakers?	**no**	Add signs and information. Staff should be informed about substitutive security procedures. Check information for foreign passengers.
2.10.	Is there audio / video informing about threats at this station?	**yes**	Check format and content with psychologists or behaviorists. Check feedback from clients. Check information for foreign passengers
2.11.	Is there audio / video informing about actions with unattended luggage at this station?	**yes**	Check format and content. Check information for foreign passengers

THANK YOU

GRACIAS

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