

# MODSafe

Modular Urban Transport Safety and Security Analysis

**Final Conference**

**25 – 26 June 2012, Cologne**

## Urban Transport Security

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RATP



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## The approach to UTS

<b>EC</b>	<b>Strategic assessment &amp; trends</b> <b>European drive for UTS transformation</b> <b>European UTS standardization or other technical harmonization</b> <b>European research &amp; innovation in UTS</b>
<b>MS</b>	<b>MS legislation</b> <b>Threat evaluation &amp; characterisation</b> <b>Critical infrastructure protection</b>
<b>Operator</b>	<b>Operational considerations</b> <b>Organisational considerations</b> <b>Doctrinal considerations</b> <b>Corporate security concerns</b>

## Contents – Part 1: UTS strategies

Title	Contents
<b>Review of existing means &amp; measures for security systems</b>	<b>UTS conceptual concentric breakdown</b> <b>A models for UTS operations</b> <b>A model for UTS countermeasures</b>
<b>Regulations in force and technologies in service</b>	<b>Legal framework considerations at the EU level and from 4 MS (France, Germany, Spain, and the UK)</b> <b>A reviewed model per UGT subsystem for UTS countermeasures &amp; supporting technologies</b>
<b>Security strategies in UGT systems</b>	<b>Terms &amp; abbreviations related to UTS strategies</b> <b>UTS focus areas</b> <b>Potential areas for UTS standards, EU R&amp;D focus areas</b> <b>A potential generic illustration of zoning</b> <b>UTS considerations at the MS &amp; corporate levels</b> <b>A typology of threats &amp; related crime or offence</b> <b>47 recommendations supporting UTS strategies</b>

## Contents – Part 2: UTS Means & Measures

Title	Contents
<b>Threats to UGT systems</b>	<b>Conceptual breakdown of threats</b> <b>Threat characterisation</b> <b>A model for the ranking of targets of opportunity</b> <b>A model for threats &amp; related offences</b>
<b>Threats scenarios in UGT systems</b>	<b>Models for threat-related scenarios</b> <b>A model to extrapolate critical infrastructure components</b> <b>4 recommendations</b>
<b>Security means &amp; measures in UGT systems</b>	<b>Terms &amp; abbreviations</b> <b>Operational considerations &amp; Countermeasures</b> <b>UTS specifications</b> <b>A typology of threats &amp; related crime or offence</b> <b>Information security management standards</b> <b>A typology of UGT targets</b> <b>UTS technologies</b> <b>UTS sector concerns</b> <b>41 recommendations</b>

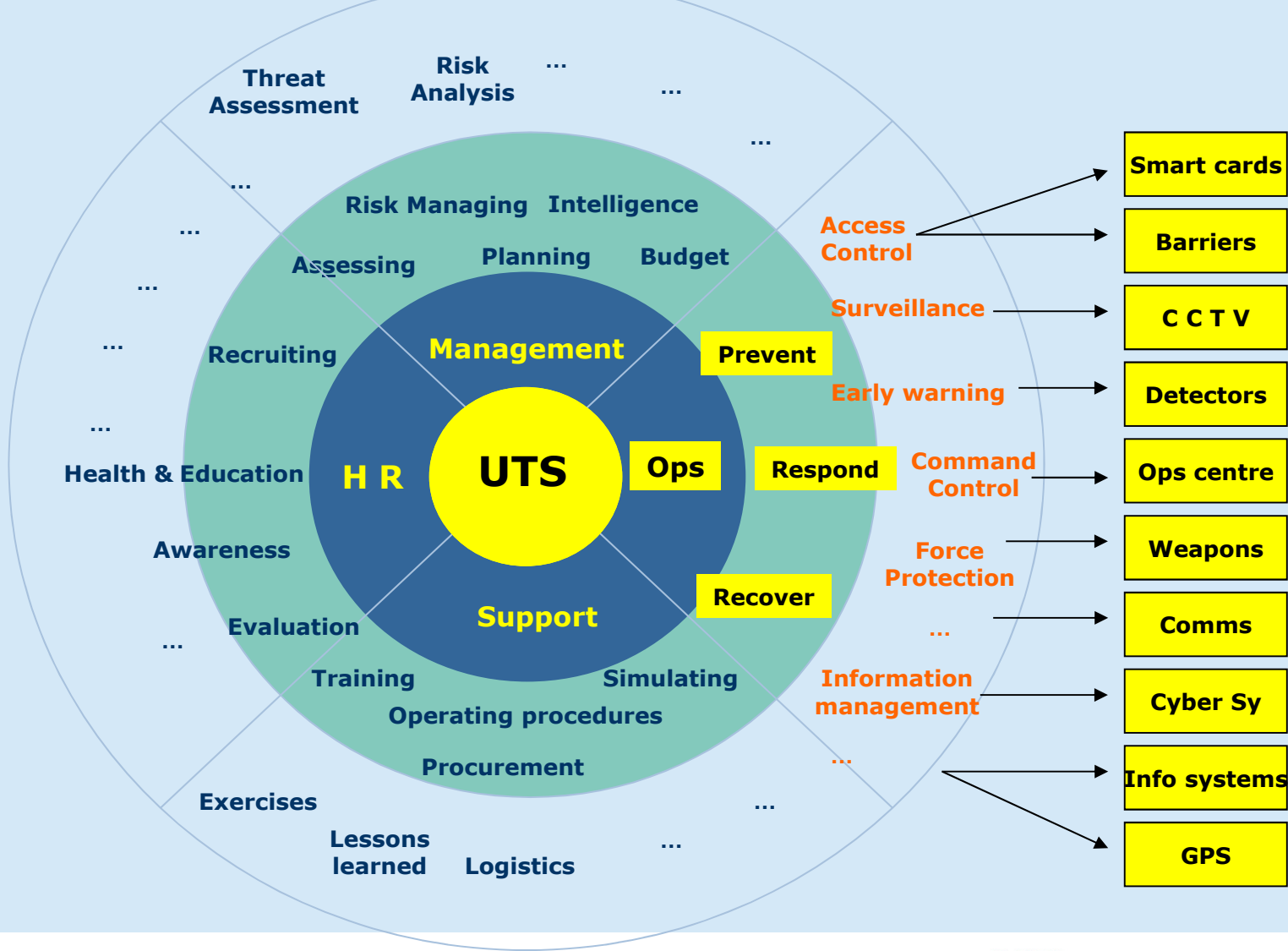
## UTS focus areas

- Glossary of UTS **terms & abbreviations**
- **11 strategic focus areas**
  - From Certification to Training...
- 21 potential areas for UTS **standards** or technical **harmonisation**
  - 5 potential UTS **terminology concerns**
  - Potential UTS **educational concerns**
  - 1 potential generic illustration of **UTS zoning**
- **R&I focus areas**
- **UTS sector concerns**

## Baseline products

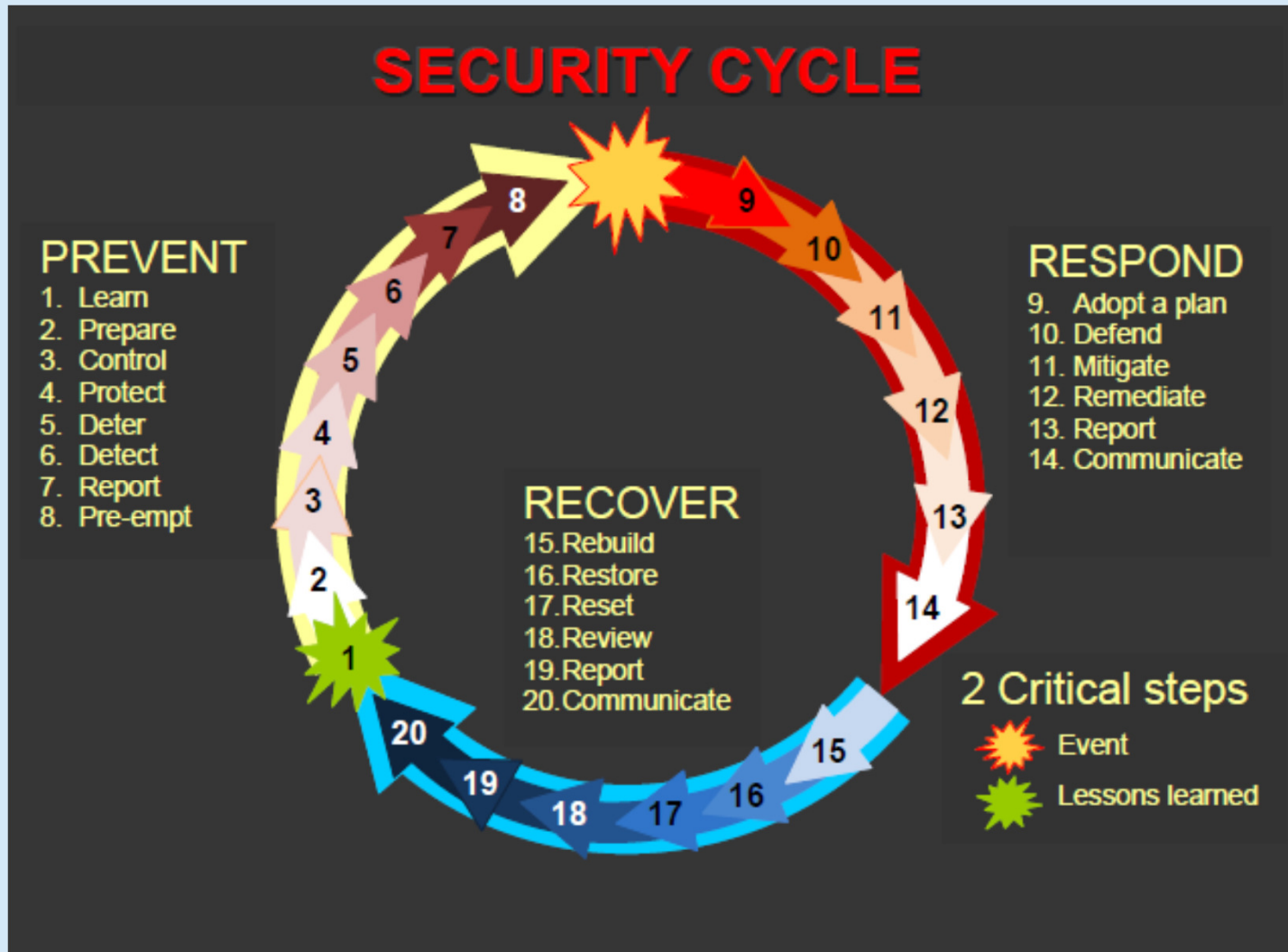
- UTS concentric breakdown
- UTS operations cycle
- UTS countermeasures
- Lessons learned process
- Potential areas for standardisation or harmonisation
- UTS terminology
- UTS zoning
- 92 UTSR
- A sample of 5 UTSR

# The concentric breakdown of UTS





# The operational cycle of UTS



# UTS countermeasures

Security field of activity	UTS countermeasure			
	UTS Task	H	Technology	SOP
<b>PREVENT</b>	Learn, prepare Survey, patrol ...	See DEL9.3 § 4.2	CCTV ...	See DEL9.3 § 4.4
<b>RESPOND</b>	Control, sweep Detect, report Protect, defend Pre-empt		Smart cards Detectors Command centre Firewalls Body armour Weapons	
<b>RECOVER</b>	... Mitigate Review, etc.		... Coms, etc.	

## Lessons Learned Process

Step	LLP task	Comment
1	Immediately after an event, <b>review performance</b> and invite criticism (hot-wash, debrief).	<b>Collect positive and negative feedback</b> (oral, print) in the wake of an exercise, a crisis, or a significant event.
2	<b>Analyse:</b> sort the plusses and minuses. <b>Investigate:</b> question protagonists. Translate the results into <b>tasks</b> .	Each task consists in a <b>simple &amp; single to-do item</b> . Word the tasks carefully.
3	Present the tasks in <b>categories</b> .	Categories like Command & Control, Communications, Equipment, Information management, PR, Training, Weapons, etc.
4	<b>Generate a Plan of Action &amp; Milestones (POAM)</b> .	In this <b>work plan</b> and for <b>each task</b> , appoint a <b>task leader</b> , a <b>controller</b> or supervisor, and adopt specify the <b>timeline</b> .
5	<b>Monitor</b> the progress regularly until finalisation. <b>Report</b> results to all concerned.	<b>Draft a final report of the corrective actions</b> based on the findings and progress made. Postpone the items at idle.

## Potential areas for possible UTS standards or technical harmonisation

Field	Potential area	Sub area
Prevention	<b>Information management</b>	CCTV, Cyber security, Data protection Disclosure policy, Integrated control & security centre System interfaces data protocols and metadata Terminology including procurement language
	<b>Design</b>	Specifications (stations, hubs, zoning, rolling stock)
	<b>Education</b>	Aggression management programmes Awareness programmes Risk analysis, Staff training
	<b>Training</b>	Charting UTS excellence Exercises, Technological impact Security dogs Security risk assessment
	<b>Security Dogs</b>	K9 potential & tactics: Defence, Deterrence, Detection
	<b>Plans</b>	Contingency plans

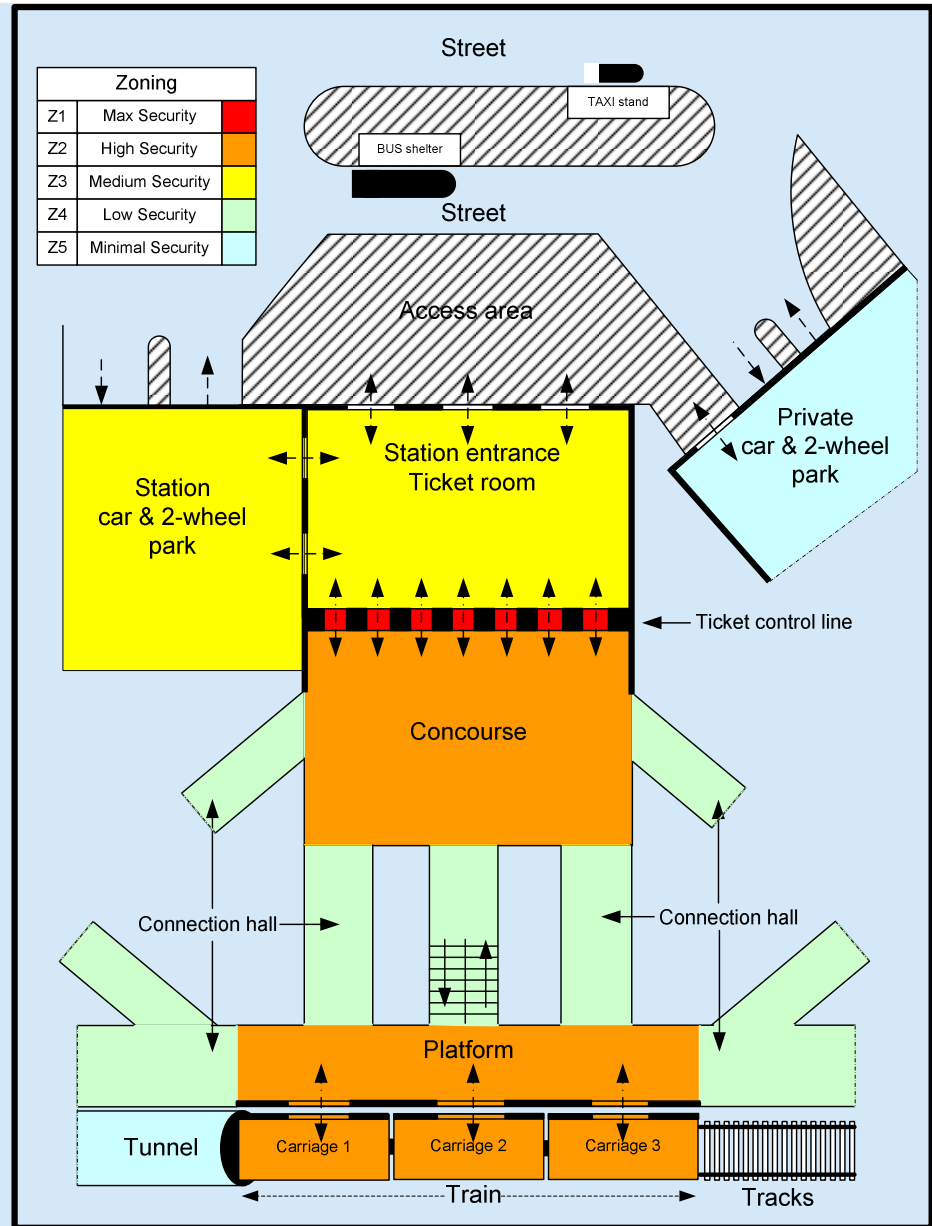
## Potential UTS terminology concerns

Publication	Comment
<b>UTS English dictionary</b>	The MODSafe project glossary of UTS terms & definitions is a much needed document. Could it evolve into a unique and complete UTS English dictionary?
<b>UTS multilingual glossary</b>	A multilingual UTS glossary of terms and abbreviations is an on-going and open-ended project managed by the UITP Security Commission. Could the transport community adopt a common multilingual document pertaining to UTS terminology?
<b>UTS procurement language</b>	The existing procurement language developed by the US DHS is used within the UK. The adoption of this standard would invite operators to include security requirements when going out to tender, ensuring that security is built in from inception.
<b>Typology of targets</b>	The presentation divides transport assets into 2 categories: <ul style="list-style-type: none"> <li>•-Transport-related assets directly enabling transport and involving passengers (i.e. Metros, buses, stations, concourses, etc.)</li> <li>•- Support-related assets (all other assets).</li> </ul>
<b>Typology of threats &amp; related crime or offence</b>	The model distinguishes between 2 categories of threats: <ul style="list-style-type: none"> <li>•-Unconventional threats inclusive of hyper terrorism or CBRN threats, and of state-sponsored large scale cyber at-tacks;</li> <li>•-Conventional threats concerning all other threats than those mentioned above, subdivided in turn into 2 sub groups to distinguish between external versus internal threats to a system.</li> </ul>

# UTS zoning

## Potential generic illustration of UTS zoning

- ‘Safe & secure’ by design
- What UTS specifications?



## Urban transport security recommendations

92 UTSR covering 19 policy areas

- Certification
- Communication, Cooperation
- Critical Infrastructure Protection
- Crisis Management, Cyber security
- Design, Education
- Explosives, Information Management, Methodology
- Operations, Organisation, Plans
- Public Relations, Research & Innovation
- Standing operating procedures
- Standardisation
- Training

## A sample of 5 UTSR

UTS policy area	Concern	UTS Recommendation (UTSR)
Cooperation	The contractual limits of MODSafe did not allow the involvement of <b>all key stakeholders</b> .	Promote <b>additional EU research</b> (e.g. the SECUR-ED project, 7th Framework Programme) building on MODSafe findings.
	A more professional, comprehensive and <b>holistic approach</b> to transport security.	Ensure that participants are chosen based on their <b>recognized scholarly competence</b> and with due consideration for the balance of disciplines appropriate to the project.
Crisis management	Ensuring a proportionate response to a terrorist threat, including <b>avoiding political over-reaction</b> such as ordering all metropolitan traffics to stop.	Promote a <b>survey &amp; debate on metropolitan traffic suspension</b> policies worldwide. Challenge the MS that have opted to <b>stop all traffics in case of an attack</b> . Provide <b>guidance</b> on responding to a terrorist attack or to the threat of an imminent attack.
Cyber security	Properly addressing <b>cyber security in relation to UGT</b> .	Analyse existing <b>information security management</b> standards in view of their potential application or adaptation to UGT.
Design	Incorporating <b>security specifications into the design of UGT systems</b> or subsystems, taking into account possible contradictions between different security objectives	Promote the practice of incorporating <b>security specifications in UGT design</b> .
Education	Current <b>deficit of qualified UTS staffs</b> and managers.	Promote <b>education in UTS concepts, doctrine, databases, semantics, procedures</b> , and support relevant research and innovation.



## Highlights

A **unique & unprecedented attempt** to shape and present UTS

Sound fundamentals highlighting the **H factor** & showcasing various **UTS models** including 3 gems

- A UTS concentric breakdown
- A UTS operational cycle
- A Process to achieve AAA-Governance

The way forward through transformation based on 92 UTS recommendations

## Forward strategy

### 5 key questions

- What **transformation**?
- Which **organisations**?
- Which **institutions**?
  - **European Institute** for Transport Security?
- Which **expert groups**?
- Which **certified** professionals, **talented** engineers?

***“Innovation is disobedience that succeeds”***

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Thank you for your attention