

Security of Mass Transportation

Towards a Holistic and Systematic Approach

Presentation to
EU Demonstration Project Workshop
18th March 2009

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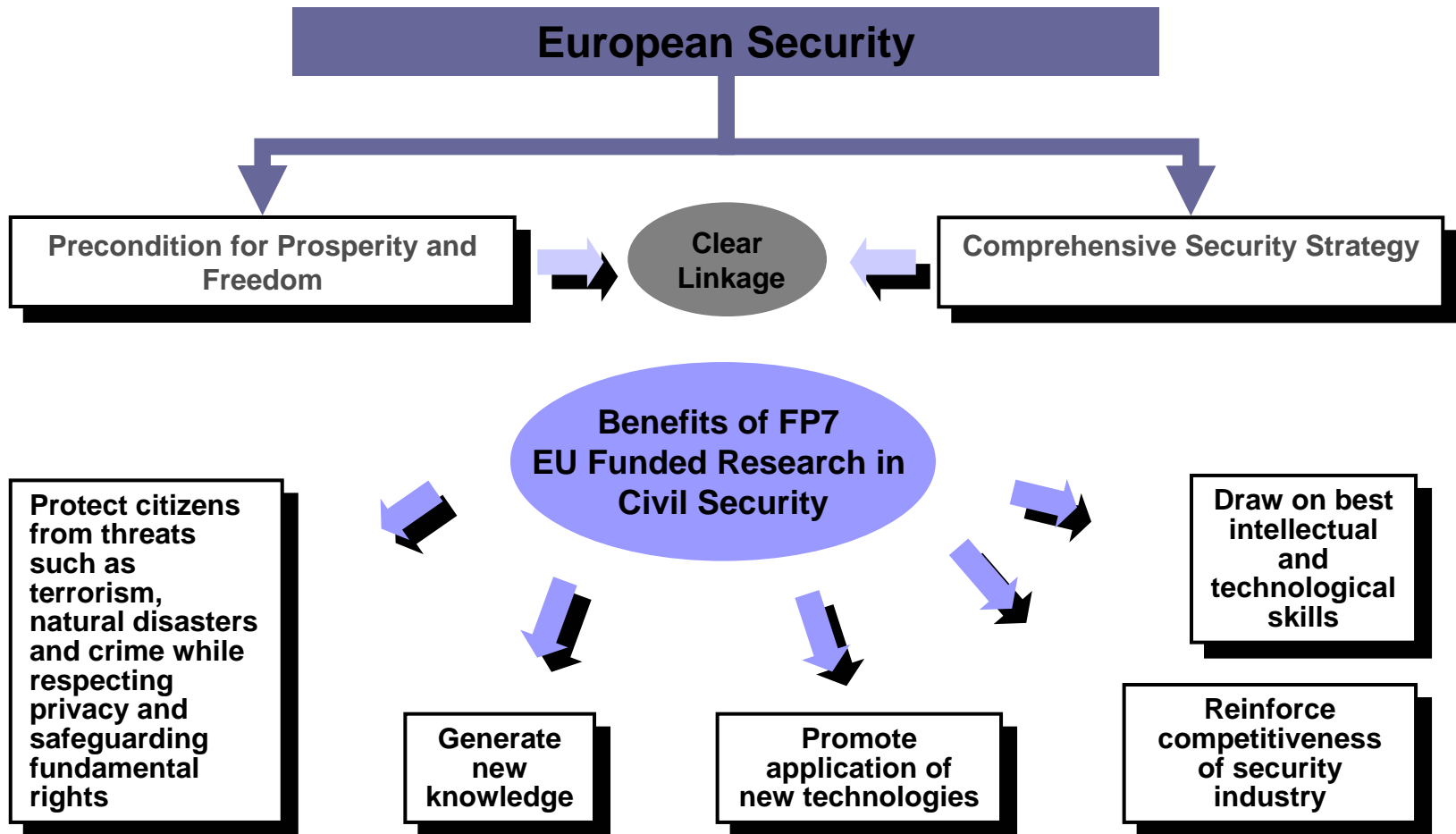


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An Understanding of EU 7th Framework Programme (FP7) Security



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The Concept

- Clear requirement for development of '*holistic*' and '*systematic*' approach to mass transportation/urban transport security, with particular regard to movement of people in urban areas.
- Inter-modal connection is of central importance.
- To provide guidance to this requirement and to ensure successful implementation there is a need to develop:

Over-arching pan-European '*best practice*' implementation methodologies and guidelines to prioritise and ensure people's security when using public transport

- These implementation methodologies and guidelines can be combined into what is termed a pan-European '*best practice*' Framework.

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The Concept

- Approach will concentrate on issues such as surveillance systems, interoperability, threat detection systems, post-event situation analysis systems, common operational systems, neutralisation and containment systems.
- Can be suitably based on virtual city **EUROPOLIS** and can be applied to **existing** and **proposed** mass transportation.
- The Framework must enable the connection of **public transportation** to **spatial planning**, which are *'inextricably linked'* as it is spatial activity that generates movement.
- In addition, consideration must be given to **urban form**, **spatial densities**, **urban spatial structure** and **critical mass**.
- Overall result will be a **significant improvement** in the security of people using urban public transportation systems through a **comprehensive** and **integrated** approach which can have EU wide applicability.

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Definition of Key Terminology

Spatial Planning

Nature of places and associated functionality

Urban Form

Level of spatial arrangement, layout and design influenced by use, density and transportation

Spatial Densities

Number of persons, families or dwellings per unit of spatial area

Urban Spatial Structure

Urban size in terms of population

Critical Mass

Size and concentration of population that enables a range of services and facilities to be supported

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Visualisation of the pan-European 'best practice' Framework Concept



Resulting in successful delivery of

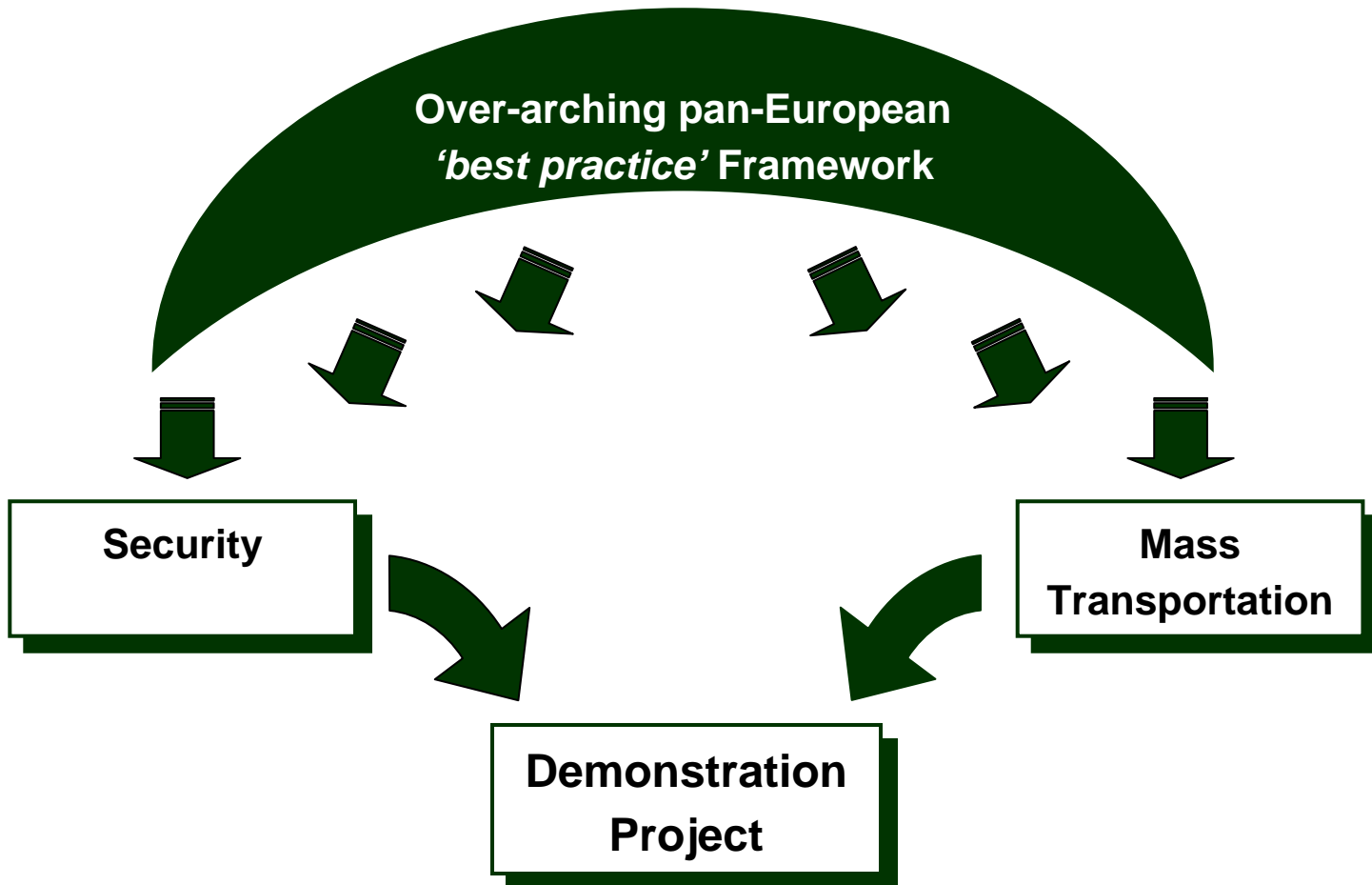
Demonstration Project

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Visualisation of the
pan-European '*best practice*' Framework Concept

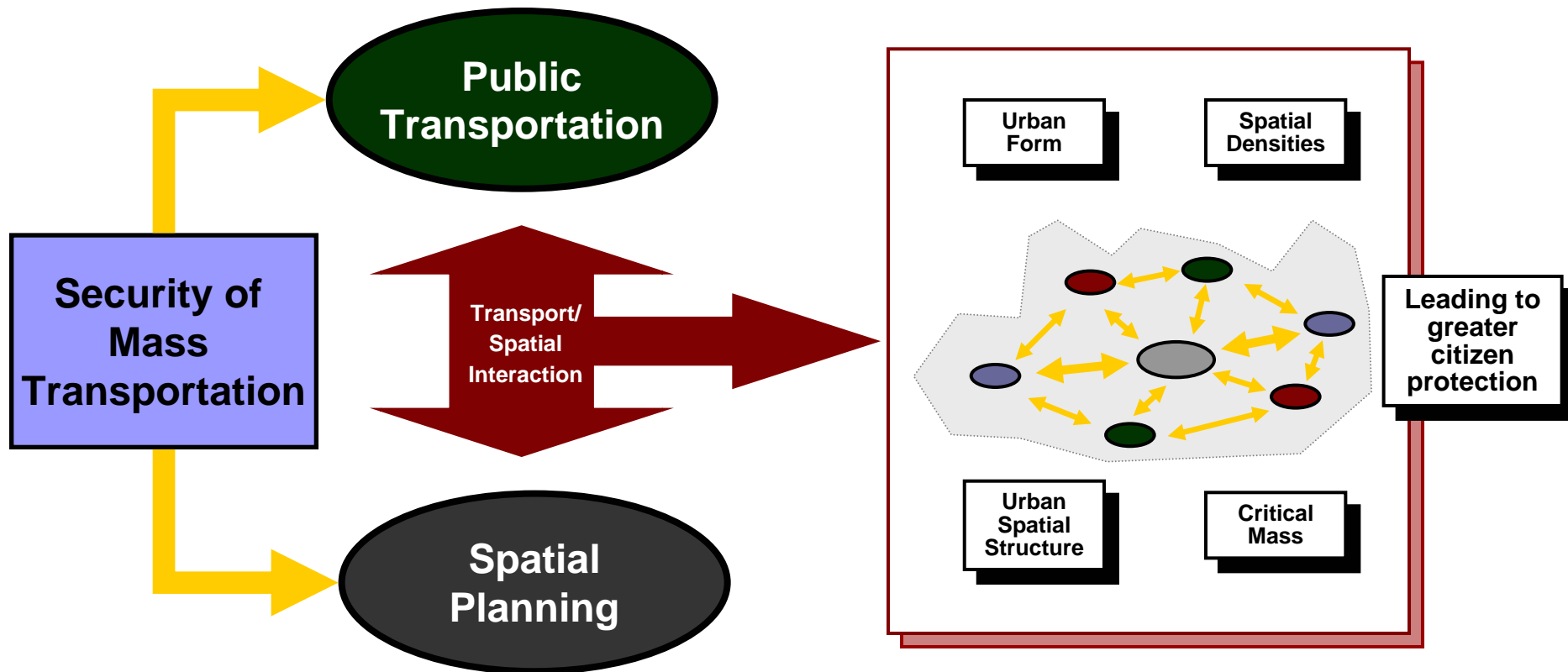


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Integration of Public Transportation and Spatial Planning through development of pan-European 'best practice' Framework



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The Deliverables

- Framework will considerably assist '*system of systems*' response, particularly in terms of:
 - Strategic importance of long-term planning cycles;
 - Development and functioning of urban mobility concept.
- Framework will allow for development of synergies, solutions and stakeholder/end-user involvement.
- Framework will allow for ongoing monitoring of developed security solutions coming out of Demonstration Project.

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Issues that need consideration to enable development of over-arching pan-European 'best practice' Framework

- Currently, half of the World's Population live in urban centres, and by 2050 this will increase to two-thirds (World Urban Forum, 2008) – [security of mass transportation critical](#).
- Consider selecting suitably comparable European Cities to virtual city [EUROPOLIS](#) as a mechanism for validation, testing and certification.
- Specific consideration of *'inter-modal neuralgic nodes'*.
- Need for progressive application of *'activity based modelling approaches'*.
- Development and definition of suitable measurable *'best practice'* key performance indicators (KPIs) and benchmarking.

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Issues that need consideration to enable development of over-arching pan-European 'best practice' Framework

- Ensure Participation and Accessibility -
 - Focus not only on public transport stops and interchanges but on complete door-to-door movement.
 - Address spatial, physical, psychological, temporal and economic considerations.
 - Consider behavioural requirements, patterns of movement and nature of activities as integrated or linked chains.
- Realise the need to provide for:
 - 'environmental justice' - preventing disproportionate adverse impacts on disadvantaged groups (US Presidency, 1994); and
 - 'just transportation' - achieve parity across race and class lines in the provision of transportation (Bullard and Johnson, 1997).
 - 'spatial equity' - preventing citizens being disadvantaged due to spatial location/place of residence (core EU aim of territorial cohesion).
- Consider spatial and socio-economic disaggregation.

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Summary of over-arching pan-European *'best practice'* Framework

- The *'best practice'* Framework, which consists of implementation methodologies and guidelines, will enable the movement towards the successful implementation of the security of mass transportation Demonstration Project.
- Framework will facilitate ongoing monitoring of developed security solutions coming out of Demonstration Project.
- Over time, the *'best practice'* Framework can be translated into appropriate EU Standards.
- Therefore, it is essential that this Framework be incorporated into the summer 2009 Demonstration Project call for proposals.

Ensuring that citizen
protection through
Security of Mass
Transportation is in
'safe hands'



Thank You For Your Time and Attention

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