

Resilience management guidelines and Operationalization applied to Urban Transport Environment

Florence Tramway

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Resolute Workshop
Florence

Co-ordinated by



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Florence Tramway

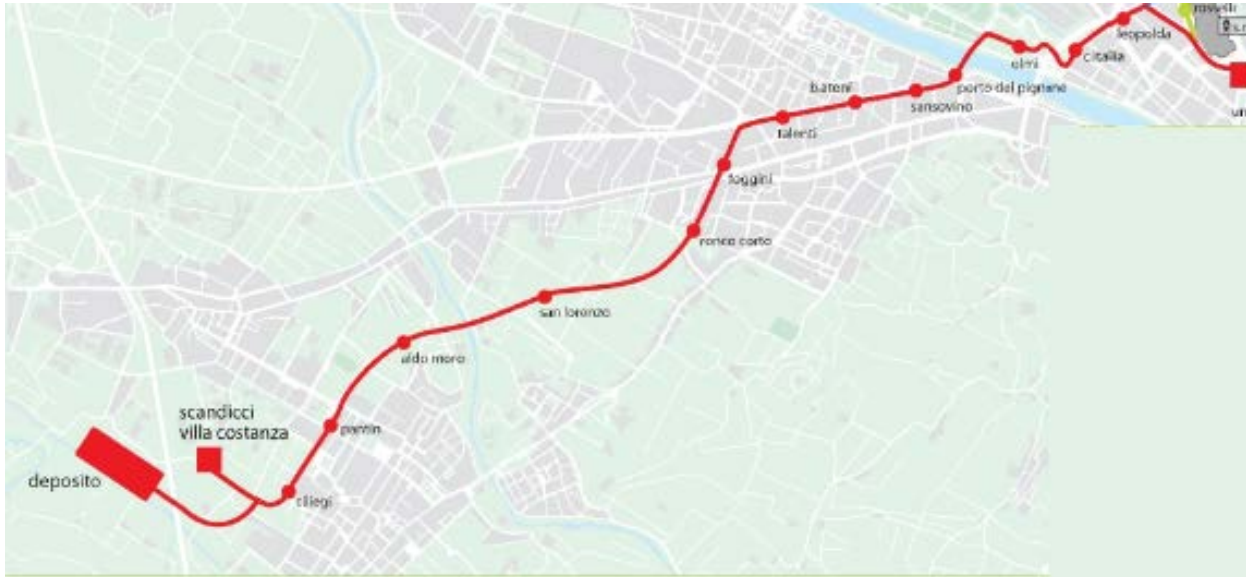


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Florence Tramway



Features of the Line 1:

17 vehicles

14 stops

Opening Day: 14-Feb-2010



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Florence Tramway

Tramway solution capabilities:

Integrated Operational Control Centre

On Board computers, communication units including PIS/PA

Tetra Radio System

Station Passenger Information System

Station Public Announcement System

Timing System

CCTV system

IP Network

VoIP

CCTVoIP

SCADA Fixed Equipment

Wifi



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Integrated Operational Control Centre:

Operation Management System
Integrated Security System



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Integrated Operational Control Centre:

Operation Management System

Integrated Security System



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Florence Tramway

Tram on-board systems:

- On-board Computer unit
- On-board public displays
- On-board public announce system
- Emergency call point
- On-board CCTV
- Tetra Radio system
- On-board WiFi



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Florence Tramway

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- On-board WiFi



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Platform systems:

Passenger Information System

Public Announce System

Timing System

CCTV

Platform WiFi



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Platform systems:

Passenger Information System

Public Announce System

Timing System

CCTV

Platform WiFi



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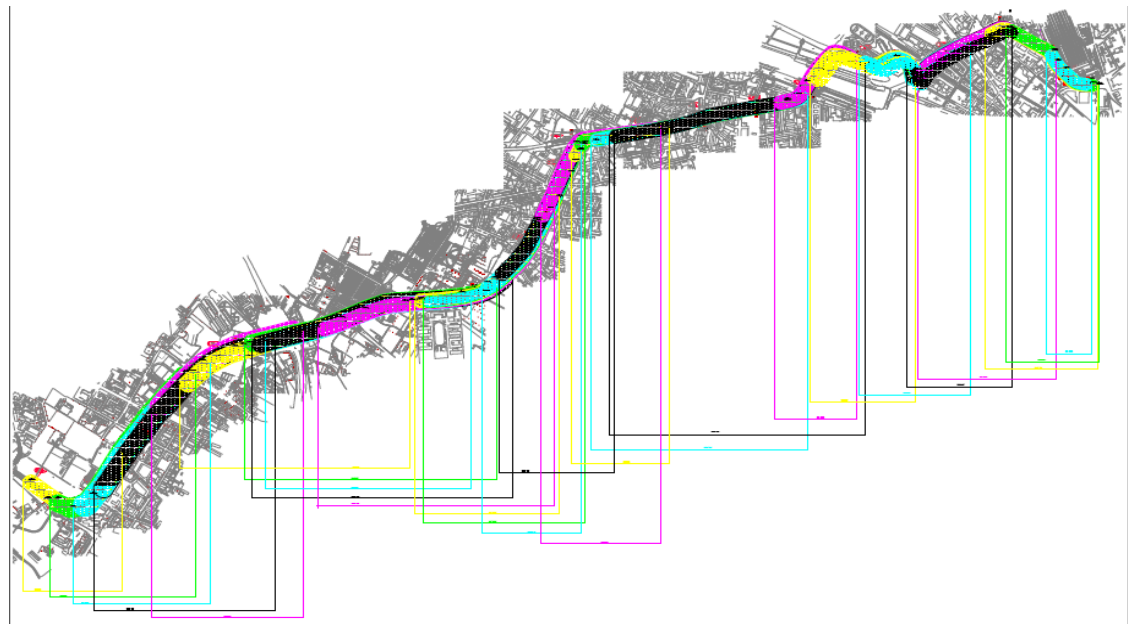
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Tramway WiFi:

Public WiFi for on-board and on-board
Provide the number of connected people
and their position

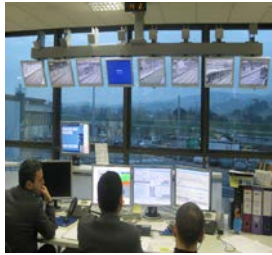


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Tramway System (emergency scenario)



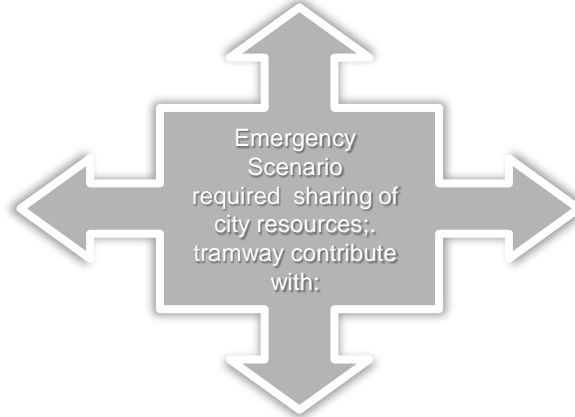
Integrated Control Centre to support Emergency Operation



Traffic controller management



Emergency Help Point To support Passenger during the crisis



Public information and public announce



Video Monitoring / Law Enforcement



To reorganize the Tramway Service during the crisis



WiFi Backbone to inform the passengers



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Questions?



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