

SUMP Resilience Topic Guide: the

toolbox to plan for Resilience

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XVI WORLD WINTER SERVICE AND ROAD RESILIENCE CONGRESS

XVI WORLD WINTER SERVICE AND ROAD RESILIENCE CONGRESS XVI° CONGRÈS MONDIAL DE LA VIABILITÉ HIVERNALE ET DE LA RÉSILIENCE ROUTIÈRE XVI CONGRESO MUNDIAL DE VIALIDAD INVERNAL Y RESILIENCIA DE LA CARRETERA





SUSTAINABILITY = RESILIENCE

Capacity over time in face of disturbances



Resilience

Sustainability



Capacity to preserve the system in the long run

Source: Tendall et al. 2015



Section 2 Topic Guide – Measure fields

Resilience Topic Guide expands the content of the <u>COVID-19 SUMP Practitioners Briefing</u> and proposes measures following the CIVITAS thematic group structure:

- Car independent lifestyles: Walking and cycling
- Electromobility
- Collective Passenger Transport
- Demand Management Strategies: Parking and UVAR
- Road Safety

- Transport Telematics: New Mobility Services
- Urban Freight





GENERAL STRUCTURE OF MEASURE FIELD CHAPTERS

- Introduction
 Introducing the measure field
 Relation between the measure field and the 7 Resilience Principles
- Dealing with COVID-19 How do cities deal with a crisis? COVID-19 as a case-study
- Short term measures
- Long term measures: Aiming For Resilience
 How can cities prepare for future crisis and build resilience?
- Case-Studies



How does each measure field contribute to each principle?

Table 8: Relation between Resilience Principles and measure fields

	Modal systems					Building blocks, Components		
Principles	Cycling	Walking	Collective Public Transport	Urban Freight	Urban Vehicle Access Regulations	Parking Management	Electromobility*	Transport Telematics
Reflectiveness	4	4	4	4	4	3	2	4
Robustness	4	5	5	5	4	1	3	2
Redundancy	4	5	5	4	4	3	3	3
Flexibility	4	5	4	4	5	4	3	4
Resourcefulness	5	4	4	4	4	3	4	3
Inclusiveness	5	5	5	4	4	3	3	3
Integrated	5	5	5	4	5	4	3	4

- 1 No Contribution
- 2 To a low degree
- 3 To a medium degree
- 4 To a high degree
- 5 To a very high

degree

CAR INDEPENDENT LIFESTYLES: WALKING AND CYCLING

Contributing Authors

Cycling: CIVITAS HANDSHAKE project partners (Reggie Tricker and Marko Horvat, ICLEI) Walking: María José Rojo, POLIS Coordinator Active Travel and Health

- Short term measures for a crisis: space reallocation, emergency planning, speed reduction, spatial interventions, communication and awareness raising, open streets...

- Long term: temporary measures becoming permanent, technical guidance on emergency design









COLLECTIVE PUBLIC TRANSPORT

<u>Contributing Authors</u> Yannick Bousse, UITP (CIVITAS SATELLITE), Luciano Pana Tronca, UCL (HARMONY) Sergio Fernández, EMT (MOMENTUM)

Crisis showed the essentiality and vulnerability of Public Transport

- Short term measures: ensure information streamlined for staff, protective equipment for the staff, cleaning/disinfecting, providing dedicated services to essential workers, adapting services...
- Long term measures: priority infrastructure, ITS and digitalization to enhance PT







URBAN FREIGHT

<u>Contributing Authors</u> Georgia Aifandopoulou, M. Teresa De la Cruz Eiriz, Xenou Elpida (SPROUT) Luciano Pana Tronca, Maria Karmigianni (HARMONY)

- Resilient city = Collaborative and Interdisciplinary Planning Approach of City Logistics
- Short term: provision of information on safety procedures, expansion of medical and health supply chains using drones, provision of prebooked parking spaces for loading/unloading...
- Long term: SULP (Sustainable Urban Logistics Plan)





DEMAND MANAGEMENT STRATEGIES

<u>Contributing Authors</u> Parking: Glenn Godin, Mobiel21 (PARK4SUMP) UVAR: Bonnie Fenton and Lisa Marie Bruner, Rupprecht Consult (ReVeAL), Simone Bosetti, Stefano Borgato (TRT)

Urban Vehicle Access Regulation and Parking management measures

- Short term: suspension/adaptation of UVAR measures, reallocation of parking space to accommodate walking and cycling
- Long term: Future technologies (geofencing, ISA), Strategic parking (and UVAR) revenue approach, supporting sustainable objectives (superblocks, reallocation of space)







TRANSPORT TELEMATICS

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- Short term measures: data-driven responses to tackle crises, monitoring evolution to adapt, usage of new technology in times of crisis
- Long term measures: multidisciplinary capacity building, scenario and vulnerability/risk modelling





ELECTROMOBILITY

<u>Contributing Authors</u> Beate Lange, City of Bremen(Green Charge), Evangelos Karfopoulos, ICCS (eCharge4Drivers, ELVITEN)

- Short term measures less relevant compared to other measure fields in the document
- Long term electromobility is key to enhance resilience of cities
- Long term measures: charging infrastructure, balancing/increasing grid capacity, Sustainable Energy Action Plans
- Public authorities should focus their efforts on drawing roadmaps and strategies to facilitate the shift towards electromobility





Thank you!

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