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Implementing Integrated Urban Services

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Cities are a spatial nexus for a great number of environmental change issues on all scales from natural disasters like flooding, heat waves to poor air quality and to climate change. These issues are closely linked to the land-cover and land-use changes associated with urbanisation including the urban layout, the local economy, transportation networks and energy systems. The environmental services to deal with the risks associated with climate changes have developed independently with distinct scientific infrastructures for different domains/areas (e.g. observation systems and models to support meteorology, hydrology or air quality are disconnected) and specific audiences associated with stakeholder needs. The result is that the services are fragmented, the infrastructure is not shared, and new audiences/services are not identified. In cities where the drivers and risks associated with climate changes are bundled, integration of services is needed to manage risks and support urban resilience.

The WMO has embarked on a mission to develop integrated urban services (IUS) to bring together different environmental services to share data and tools and develop a common system of communications that support risk management and long-term planning at urban scales. An IUS is envisaged as an evolving system that is co-created with stakeholders to ensure a service that is adaptable to specific urban environmental concerns. The WMO has created guidelines for the creation of an IUS and a report that showcases IUS using demonstration cities. This presentation focuses on the final component of this mission, that of implementing an IUS. As part of this work, the WMO has reached out to a wide spectrum of urban stakeholders to identify needs, which can form a framework for next generation services. In addition, it will evaluate the costs and benefits of implementing IUS in different socioeconomic settings.