



2017 ANNUAL POLIS CONFERENCE
6-7 December 2017, Brussels
Innovation in Transport for Sustainable Cities and Regions



The 1st Urban Mobility Innovation Index



هيئة الطرق والمواصلات
ROADS & TRANSPORT AUTHORITY





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6/12/17



UMii Background, Aim & Partners

UMii Background & Aim

1. Cities recognise **innovation as one of the main tools** to improve their sustainability and liveability
2. Some of them appear to be more successful than others in fostering innovation
3. Innovation can be perceived as **disruptive**
4. Innovation means much more than adopting new technologies
5. Innovation has a dual nature: contextual & global

Why UMii?

- ⇒ Provide a framework to assess the **maturity of the innovation ecosystem** in urban mobility
- ⇒ Encourage city leaders, mobility providers, practitioners & innovators to **work together**
- ⇒ **Catalyst for more cooperation** (UMii Forum)

Partners:

UMii Framework



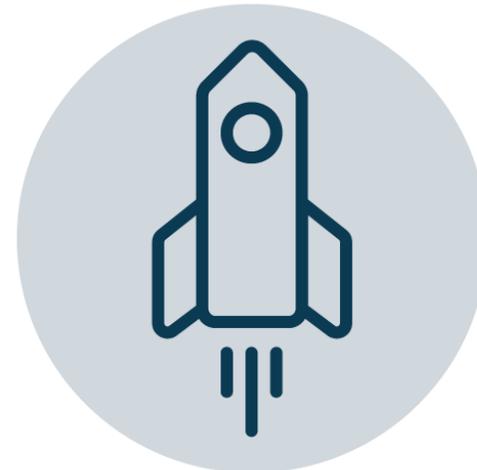
UMⁱⁱ FRAMEWORK

3 dimensions, 3 different stages of innovation



Readiness

Does the city have a grounded view of how to approach innovation and the capability to deploy it?



Deployment

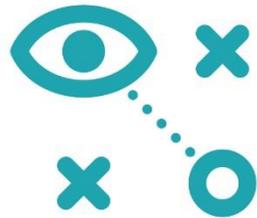
How effectively does the city enable innovation to be deployed?



Liveability

How well is the city performing when it comes to quality of life?

UMⁱⁱ dimension – 1: Readiness



Strategy

Does the city have a clear and holistic strategic vision and a plan for mobility innovations?



Capability

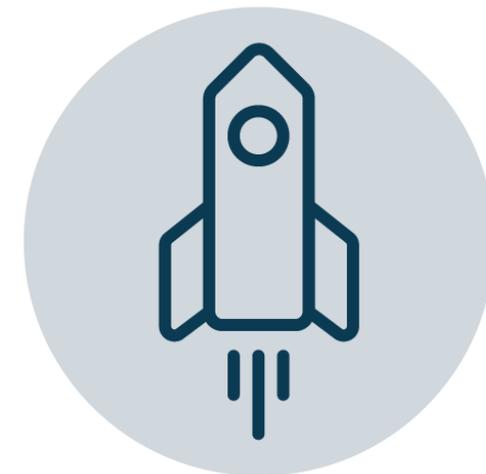
Does the city have the skills required to test, deploy and implement transport innovation?



Soundness

How is data used to inform and enable mobility-enhancing innovation in the city?

UMⁱⁱ dimension – 2: Deployment



Regulation

How does the city approach regulation to influence innovation? (market barriers & new business models)



Investment

Has the city the capacity to invest and to attract investments for innovative mobility systems and services?



Engagement

How does the city engage with and act upon user insights and experience? (User engagement, data collection, information provision)

UMⁱⁱ dimension – 3: Liveability



Connectivity

How does the city encourage seamless and integrated mobility?
(Integration of different modes, Ease of use)



Wellbeing

How easy is it to choose in the city for healthy and responsible travel habits?
(Quality of life/happiness, fairness, sustainable and healthy mobility)



Environment

How well the city perform in terms of environment?
(air quality, energy consumption)

30 UMii Cities

Abu Dhabi

Abuja

Amman

Amsterdam

Barcelona

Casablanca

Chicago

Delhi

Dubai

Geneva

Helsinki

Hong Kong

Istanbul

Johannesburg

Kuala Lumpur

Lisbon

London

Los Angeles

Manchester

Mexico City

Milan

Montréal

Munich

Nairobi

New York

São Paulo

Singapore

Sydney

Vienna

Warsaw



UMii Outcomes & Findings



UMii Outcomes

1. **UMii cities global network :**

- UMii Forum : events where cities share their experiences
- Online platform: website, linkedin group and twitter account
- Connection with UITP & FCC broader networks

2. **Urban Mobility Innovation Report** to help city administrations to improve mobility experiences for their citizens by fostering innovation and entrepreneurship

3. **UMii Position Paper** based on findings, informing policy-makers on key challenges and opportunities and recommending lines of action to improve urban innovation ecosystems

4. **Business Plan** to look at options for UITP to carry on UMii

UMⁱⁱ FORUM

DUBAI, 21/11/16: Abuja, Abu Dhabi, Barcelona, Dubai, Vienna, Istanbul, Johannesburg, Casablanca, Helsinki, Sao Paulo



MONTREAL – 17/05/17:
Dubai, London, Los Angeles, Manchester, Munich, New York, Rio de Janeiro, Singapore



LOS ANGELES – 16/11/17: Dubai, Lisbon, Kuala Lumpur, Los Angeles, Madrid, Milan, Oslo, Paris, Vancouver

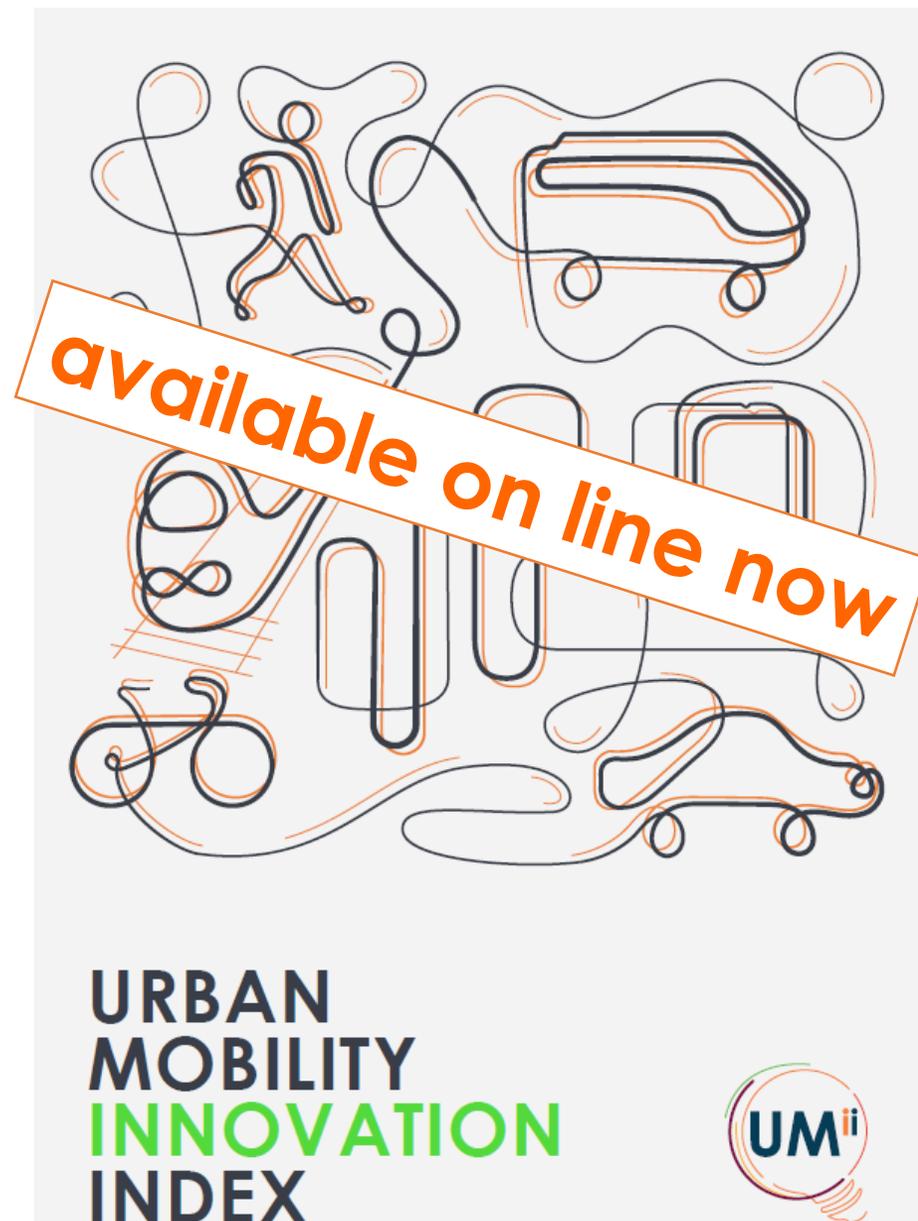
UMii Report

Launched 09/11/17 by His Highness
Sheikh Mohammed Bin Rashid Al
Maktoum

Content:

- The journey: approach, methodology & research process
- UMii Framework
- Key Findings
- 30 Innovation City Profiles
- Conclusions:
 - Key enablers
 - Final thoughts

(70 pages)



UMⁱⁱ Findings

The biggest potential for improvement in fostering innovation is in:

- Capability
- Soundness
- Regulation

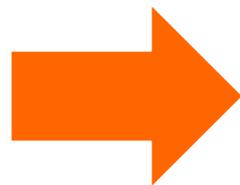


UMⁱⁱ Findings & Recommendations (1)

- **CITIES' CAPABILITY TO ENABLE INNOVATION:** most cities refer to their limited internal capacity to address innovation in urban mobility effectively
- Some cities have created **autonomous structures dedicated to urban innovation** such as innovation labs, and others stakeholder platforms that work together towards a common vision.
- Cities who don't benefit from internal capacity to enable innovation, have established partnerships or collaboration agreements with universities and industry.

Los Angeles Transport Authority has created a dedicated "Office of Extraordinary Innovation" (OEI) to drive mobility innovation in Los Angeles. The body aims to find and test ideas that have the potential to improve mobility for citizens across the city.

Amsterdam invested €65 million to create the Amsterdam Institute for Advanced Metropolitan Solutions to attract and retain international students and strengthen technology



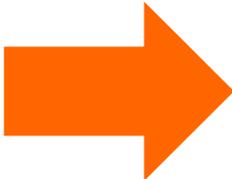
To work towards a mobility strategy fostering innovation, a city **must secure the appropriate institutional and human capacity** and the **right set of capabilities** to create an innovation friendly environment that invites innovators to experiment in the city.

UMⁱⁱ Findings & Recommendations (2)

- **CITIES' REGULATION AS A TOOL TO SUPPORT INNOVATION:** the majority of cities have a **reactive and passive response** to regulatory barriers, particularly towards more disruptive innovations.
- Moreover, this type of innovation tends to be undertaken primarily by **new entrants** with whom they do not have pre-established channels of communication.

The Land Transport Authority of Singapore has recently amended the legislation to provide flexibility needed to assess the appropriate regulatory response to automated vehicle technologies more quickly. Singapore wants to ensure that the rules keep pace as the technology and trials advance. This **new regulatory sandbox** is limited to five years.

In Dubai, current regulations and contract conditions have been tailored to allow the Road Transport Authority of Dubai to work with innovative companies, start-ups and universities to be able to test and pilot ideas and innovations.



Non-financial barriers to innovation, such as regulatory and contractual rigidity, hamper the development of new urban mobility solutions. By adapting and making bureaucratic processes less rigid, in particular for purchasing, cities will be able to increase their capacity to develop innovative mobility solutions.

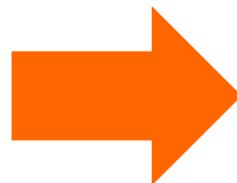
UMⁱⁱ Findings & Recommendations (3)

CITES & DATA: research shows most data collected by urban mobility authorities focuses on transport related data.

- There are also some examples of **crowdsourcing** through mobile applications, as well as some cities that extend data collection beyond transport data to cover areas such as demographics and environment.
- Limited examples of cities exploring data collected for internal purposes such as **prioritising decisions** or reviewing procedures.

Transport for London introduced its 1st technology and data strategy in 2016, which focused on harnessing technology and data to deliver improvements and foster innovation in the city's mobility system. TfL developed a unified API which provides access to real-time data for various modes of transport. This encourages third parties to develop innovative transport applications.

Over 12,000 developers have registered for TfL's open data services which are powering over 600 apps, used by 42 per cent of Londoners.



While quantity of data is increasingly available, cities must ensure the **quality of the data** collected and adopt standardised ways of collecting and sharing data. **Data should be used to inform cities' strategy**, but also to **assess the performance** of the cities to implement their strategy as well as for improvement of mobility systems.

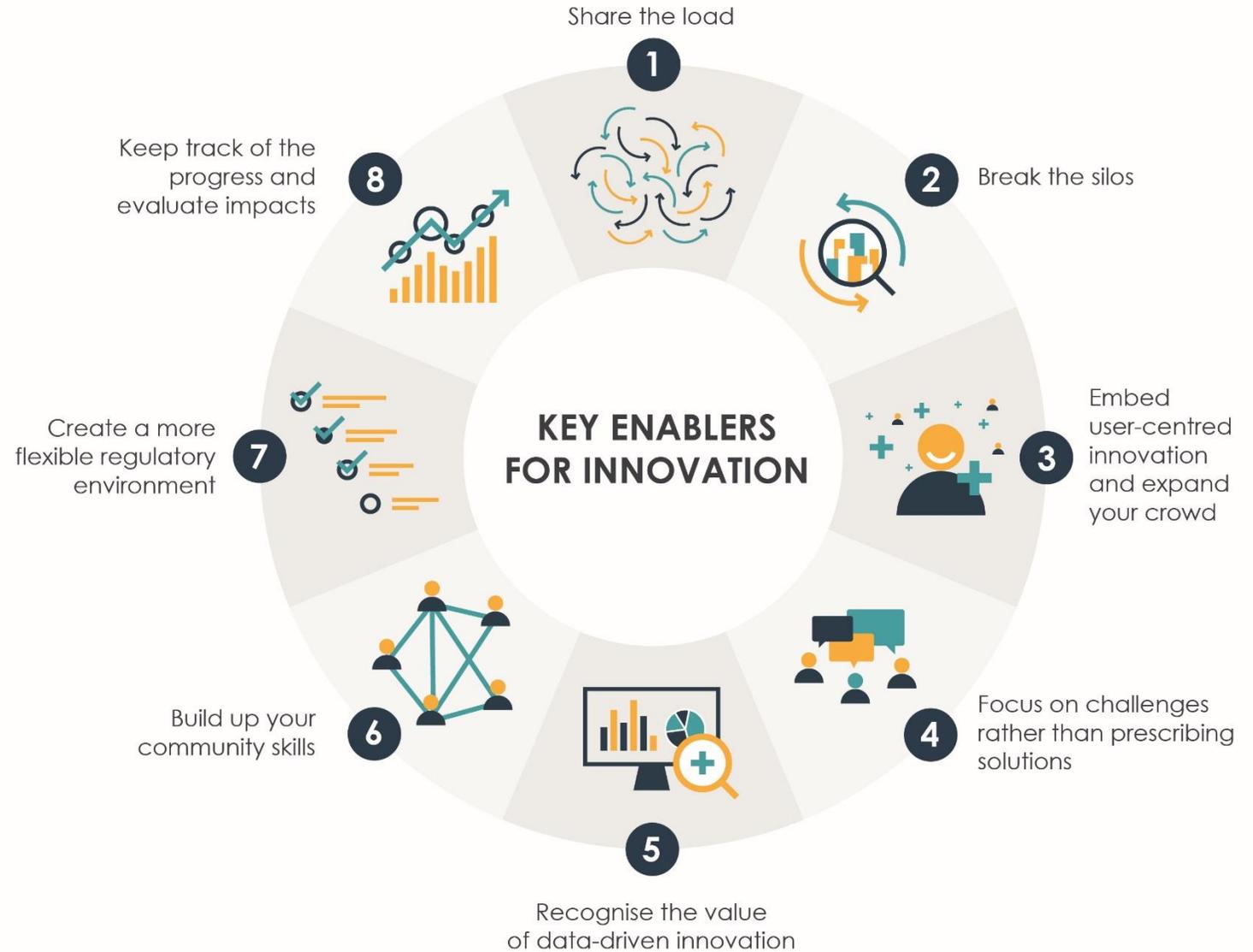
Empower cities to foster innovation: UMii Position Paper

- ⇒ **Raises awareness** of cities & transport decision makers about the importance to integrate innovation as part of their urban mobility strategy and mobility planning
- ⇒ Provides a **set of recommendations** for cities leaders and a series of **key enablers for innovation** in urban mobility

Structure:

1. Introduction
2. UMii findings illustrated by examples
3. Practical recommendations
4. The “**Urban Mobility Innovation Wheel**”
5. Conclusions

Urban Mobility Innovation Wheel



Next steps

February 2018 - UMii Forum in Dubai

Looking Partnerships & Cities:

- Cities to co-host UMii Forum
- Invite more cities to join the UMii Forum (5 cities per year)



More information available on

www.umi-index.org

Follow us on Twitter [#UMiindex](https://twitter.com/UMiindex)

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