



INTERNATIONAL ROAD FEDERATION
FEDERATION ROUTIERE INTERNATIONALE

ITS Deployment Status in Egypt

Dr. Khaled El Araby

Professor, Ain Shams University, Cairo
Co-Founder, ITS Egypt

IRF/ITS Arab Workshop on
ITS Deployment in the MENA Region

Marrakech, Morocco

20 March 2013





Presentation Outline:

- ITS Egypt Association
- ITS Strategy Plan for Egypt
- Cairo Transport App Challenge Initiative
- Proposal for ITS Cooperation in the MENA Region



ITS Egypt Association

- ITS Egypt is an NGO currently under establishment with Dr. Khaled El-Araby and Dr. Ahmad Mousa as co-founders
- Objective: Promotion and development of ITS in Egypt.
An umbrella for all ITS stakeholders in Egypt
- ITS Egypt is collaborating with various parties as follows:
 - Academia
 - Ministry of Transport: ITS Strategy, ITS Deployment on roads, rail safety systems, seaport logistics and management
 - Ministry of Communication and Information Technology incl. ITIDA (Information Technology Industry Development Agency) and TIEC (The Technology Innovation & Entrepreneurship Centre)
 - Industry partners: Google, Microsoft, Vodafone, Kapsch,



ITS Egypt Association

Activities:

- ITS Centre of Excellence at German University of Cairo
- ITS Master Program at Ain Shams University as part of EU TEMPUS program in collaboration with European Universities
- ITS Egypt opened up collaboration with ITS UK, ITS South Africa and ERTICO ITS Europe. ITS Greece is interested to cooperate.



ITS Strategy Plan for Egypt

- Funded by the EuropeAid/EU Technical Assistance to support the Ministry of Transport in the reform of the Egyptian Transport Sector
- Administered and managed by the Ministry of Transport
- First mission: Development of ITS Unit/Task Force in the General Authority for Roads, Bridges and Land Transport (GARBLT) to take charge of ITS planning requirements and interface with ITS Strategy Plan
- Set up of necessary arrangements between government stakeholders: Ministry of Transport, Ministry of Communication and Ministry of Interior.
- Involvement of private companies to push for quick deployment of ITS services
- To start in March 2013 with final results in October 2013



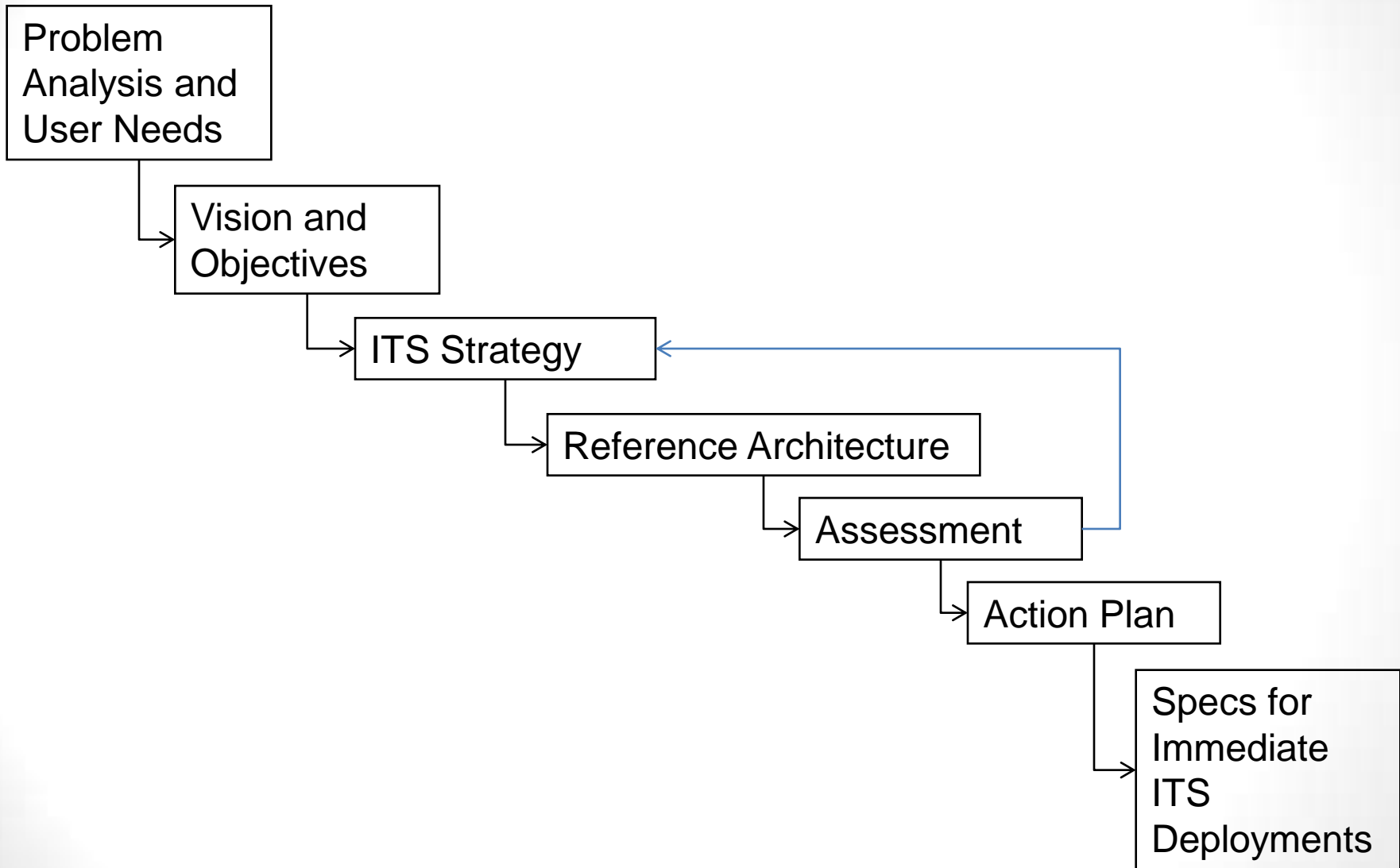
ITS Strategy Plan for Egypt

Objectives:

- Develop an ITS plan for Egypt that will address the immediate and long term needs and also determine a Staging Plan for implementation of ITS applications on the key regional and urban road networks;
- Determine a reference architecture framework of integrating ITS solutions including organizational, service requirements and overall technical specifications;
- Determine costs, benefits and risks of adopting particular ITS systems that are relevant to the needs and priorities of national and regional authorities;
- Determine possible avenues of funding and procurement of ITS solutions.
- Develop necessary design and specification elements for tendering selected ITS projects of immediate priority for deployment.



Egypt ITS Strategy Plan Framework



Source: Ministry of Transport, 2012



Priority ITS Applications

- Road Monitoring Infrastructure
- Advanced Traffic Management Systems
- Advanced Traveler Information Systems
- Advanced Public Transport Systems
- Safety Systems for Pedestrians and other Vulnerable Road Users
- Heavy Vehicle Operations
- Electronic Payment Systems

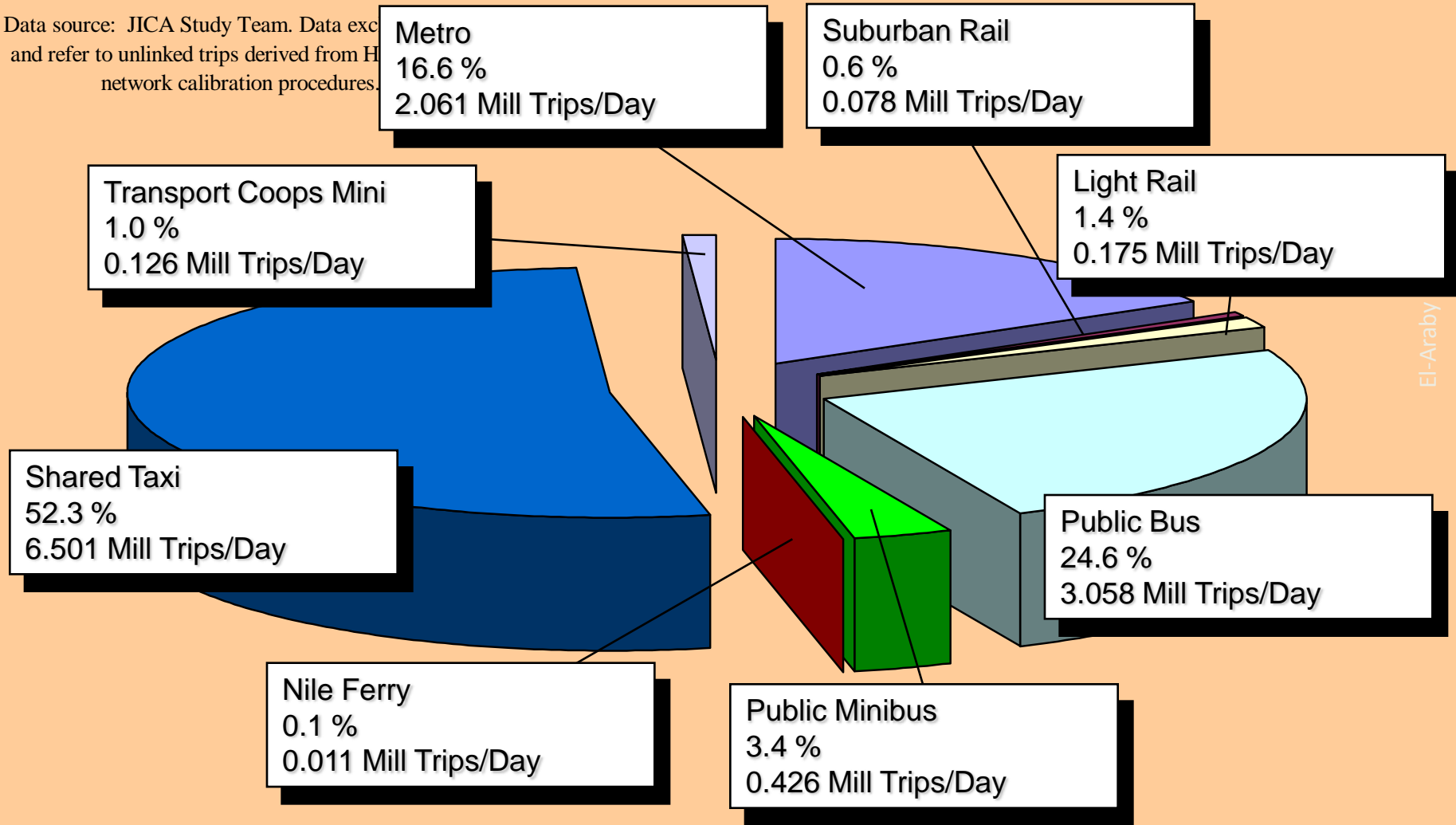


Typical Transport Problems



Year 2010 Public Transport Trip Distribution

Data source: JICA Study Team. Data excludes unlinked trips derived from H network calibration procedures.





Cairo Transport App Challenge

- How to use smart mobile technology to improve transport in Cairo, make it less congested and safer for drivers, passengers and users of public transport.
- Open to all app creators: developers, marketers or users with ideas. Technical and business mentorship
- Supported by World Bank, Ministry of Communication and Information Technology, Ministry of Transport, Egypt tech community (<http://cairo.hackathome.com>)

Problem Statements:

- Improving driver behaviour and education
- Encouraging shared rides and car-pooling
- Public transportation information system
- Increasing effective traffic enforcement
- Data collection on traffic situation in Cairo
- Harassment and other personal safety issues

In Cairo, crowdsourced app challenge seeks to ease traffic congestion

The Egyptian government is calling on citizens to come up with a way to solve the capital's traffic problems through the Cairo Transport App Challenge.

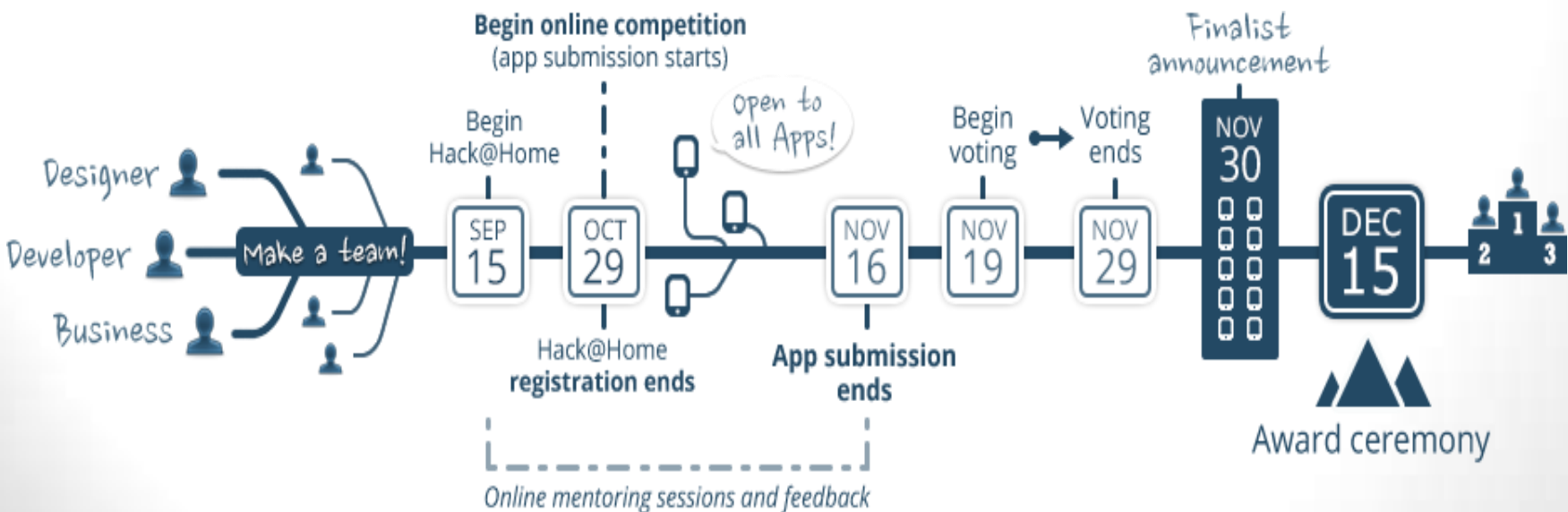


28th September 2012 in Government



Cairo Transport App Challenge

- The challenge began with a workshop held at Egypt's Technology Innovation and Entrepreneurship Center (TIEC) in September 2012, resulting in more than 24 application submissions. The top ideas were whittled down to 10 finalists by experts and mentors, with the "most popular" app chosen through online voting.





Cairo Transport App Challenge Winners

- *Winning app:* **Beliaa**, is a “mobile car mechanic” designed to assist car owners. It is the first mobile application for road assistance and car maintenance in Egypt, using GPS location to help drivers locate road assistance centers and sending car maintenance requests with the required service, date, and time to authorized car workshops. The app is also integrated with the General Department for Traffic to provide quick and reliable traffic updates.
- *Second place winner:* **Emokhalfa**, allows users to review Cairo’s drivers based on license plate numbers. Emokhalfa is a crowdsourcing platform that aims to improve road safety by building community pressure around reckless driving. The startup allows users to report any vehicle by entering its license plate number along with an optional photo to Emokhalfa’s website, mobile app, or by calling their hotline at 19739.





INTERNATIONAL ROAD FEDERATION
FEDERATION ROUTIERE INTERNATIONALE

Cairo Transport App Challenge Awards Event

16/2/2013



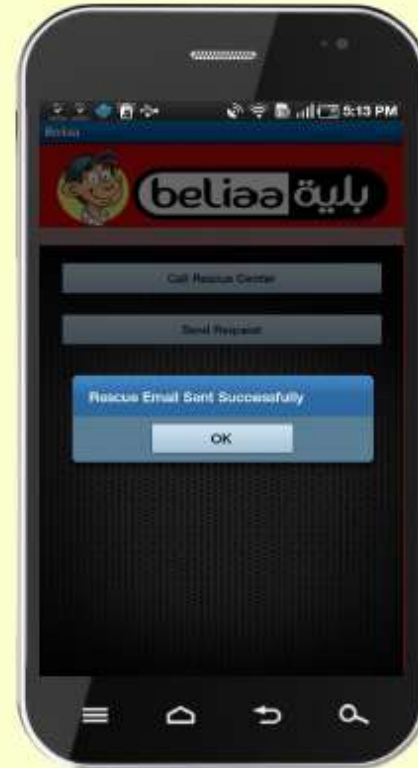


INTERNATIONAL ROAD FEDERATION
FEDERATION ROUTIERE INTERNATIONALE

Beliaa App

GPS Road Assistant

Using Mobile GPS or Network Location Identification to sent Map SOS



Beliaa App

Maintenance Scheduling

Requesting Maintenance Services or reporting Car Problem



Mokhalfa App

25/9/2012

صيد اليوم

اللوحه المخالفة

EGYPT	مصر
٤١٨	ص ي ص

المعادى

ميدان الجزائر

شكراً خاصاً للعضو
Freestyler



بصراحة حايذ اعلق على الصورة .. بس مش لاقى تعليق مناسب ... تعليقاتكم انتم !!

www.Emokhalfa.com



IRF REGI
NORTH 7



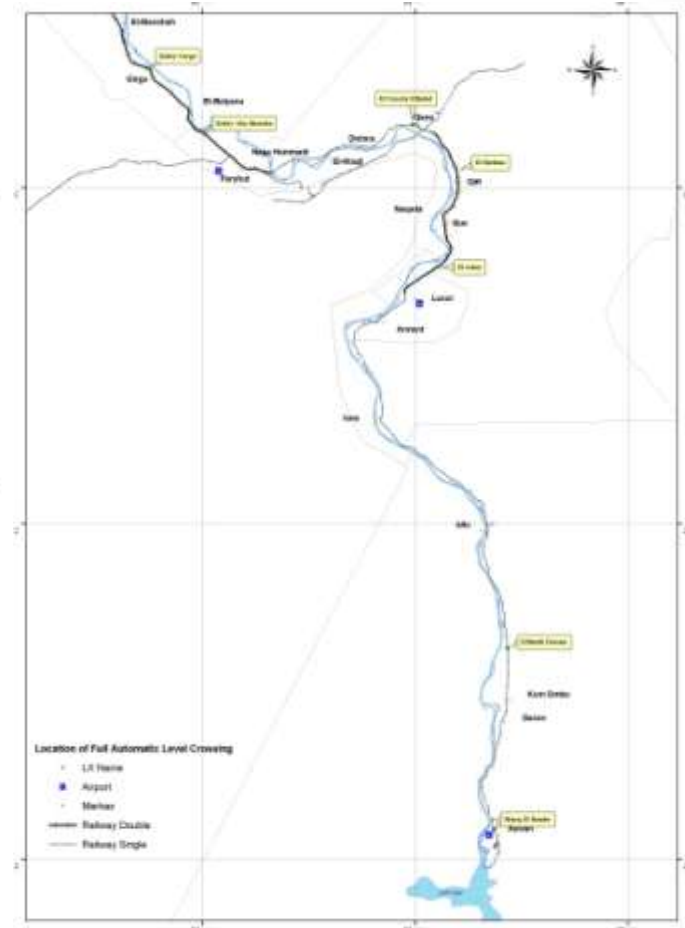
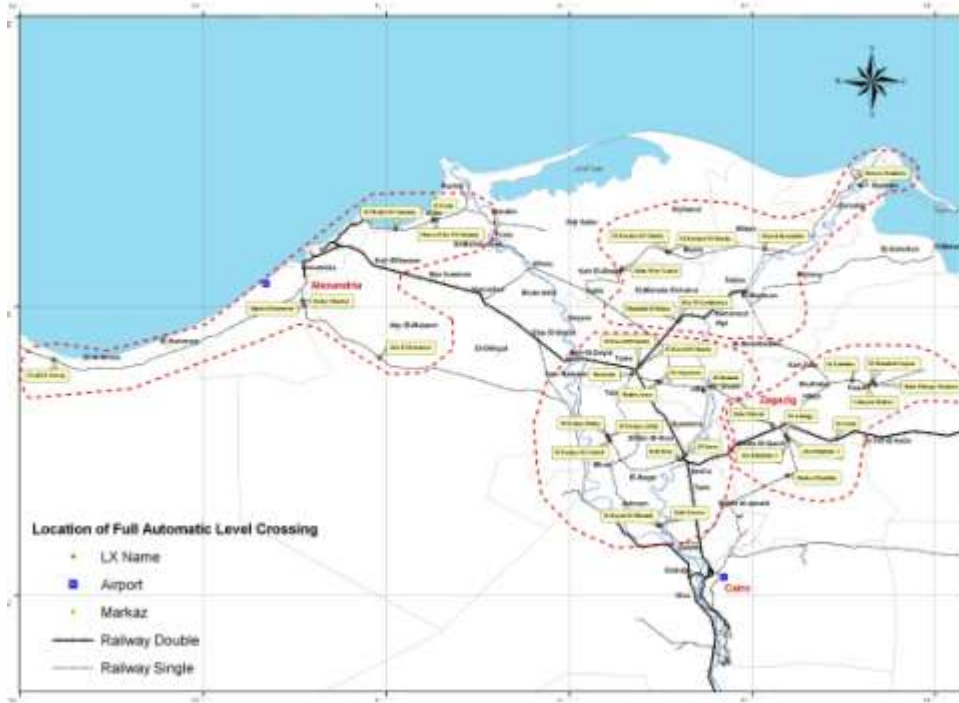
Examples of Current ITS Applications in Egypt

(1) Cairo Traffic Monitoring Centre - General Traffic Department



Examples of Current ITS Applications in Egypt

(2) Fully Automatic Rail Level Crossings Mega Project



- Phase I (2007-2012): 130 crossings
- Phase II (2013-2014): 150 crossings
- Full signalization of railway lines

Source: ENR, 2012



مزلقان النيل
Before Development



مزلقان النيل

After Development



مزلقان كفر بطا

Before



مزلقان كفر بطا

After Development



Proposals for Road ITS Deployments



Surveillance gantry



Quantities:

- ▲ SG Plaza: 2
- ▲ SG Highway: 19
- ▲ SG Rural: 6
- ▲ Border small: 8

Source: Kapsch TrafficCom, 2012

ITS Cooperation in the MENA Region

- Exchange knowledge in the development of ITS Strategic Plans
- Develop joint projects or platform for ITS planning and deployment on regional road, rail and sea corridors through regional and international initiatives as Arab League, ITS Arab, Euromed, EuropeAid MEDA, IRF
- Joint academic and professional programs to develop ITS capacities
- Development of Transport Apps Challenge similar initiatives to promote ITS app development among young IT and transport professionals in the region.
- Let us start with a joint **Position Paper on ITS Deployment in the MENA region**



For more information:
Khaled El-Araby
elaraby@hotmail.com

Thank you for your attention

شكرا جزيلاً

