



# Challenges of developing mass transit systems in developing countries

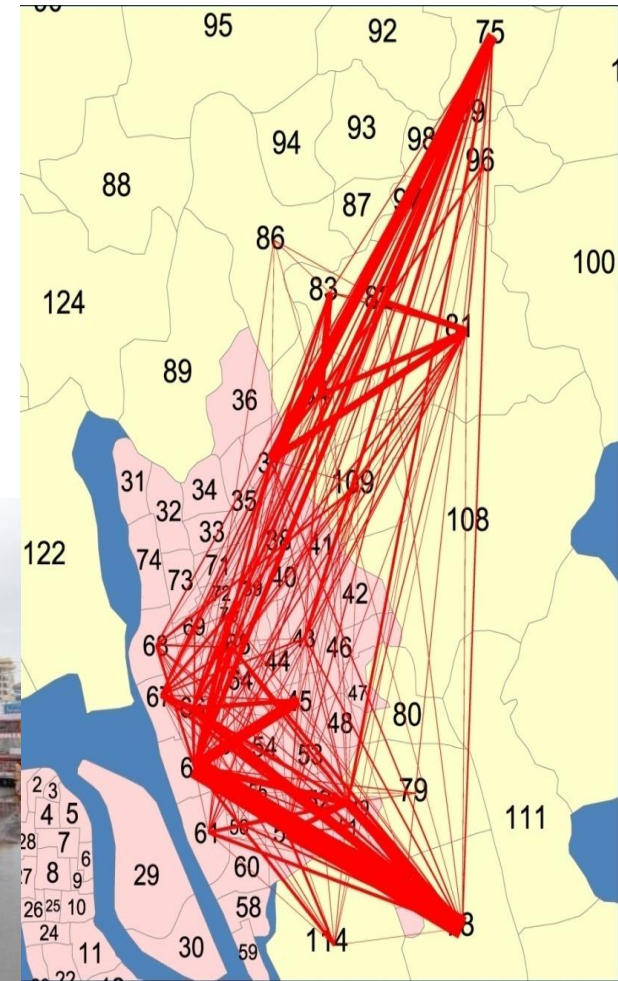
## The Kochi Metro experience

UMI conference – Hyderabad

5<sup>th</sup> November 2017

# 00. A brief history of a successful partnership Kochi : a vibrant city at the heart of Kerala

- Capital of the state of Kerala
- 2,1 millions inhabitants
- City Mobility Plan elaborated in 2007 to improve the urban mobility and the transport services, and reduce congestion and pollution



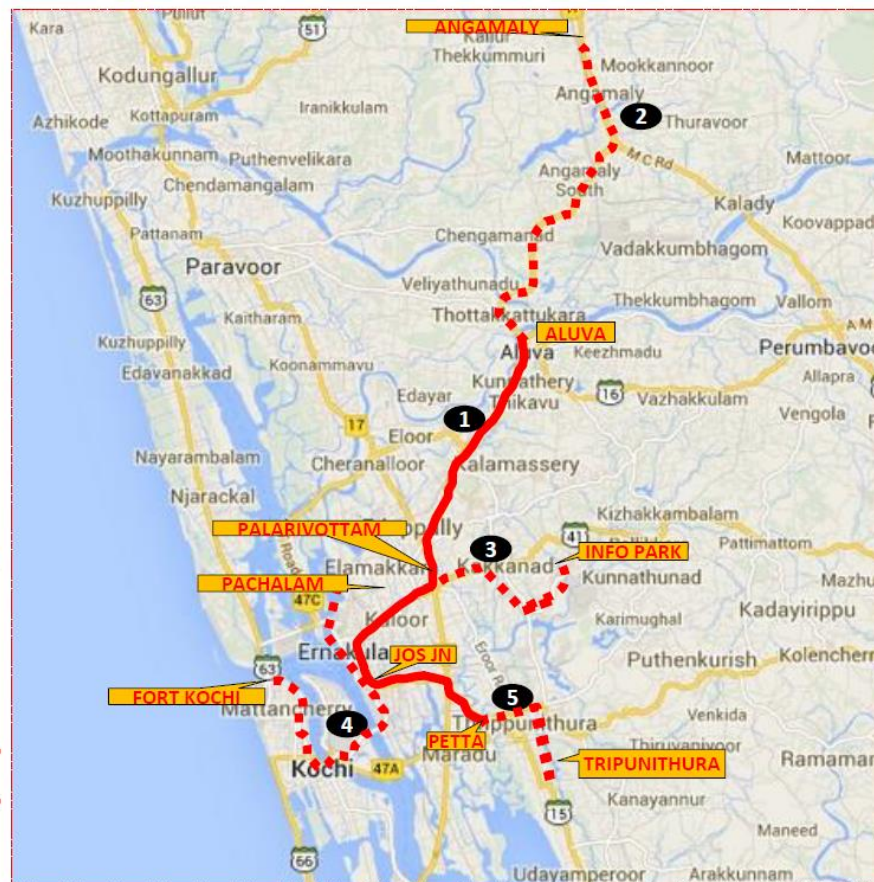
# 00. A brief history of a successful partnership Metro : the short term solution

- A MRTS with a route length of 25.6km with 22 elevated stations along a linear path that goes right through the center of the most congested roads in Kochi, total cost 651 M€

1. ALUVA - PETTA (PH-I)  
(25.612KM)
2. ALUVA- ANGAMALY  
(18.28M)
3. JLN STATION - INFO  
PARK VIA KAKKANAD  
(10.90KM)
4. PACHALAM /JOS  
JUNCTION) - FORT  
KOCHI (19.8KM)
5. PETTA - TRIPUNITHURA  
(3.45KM)

## LEGEND

- METRO LINE PHASE-I ————
- METRO LINE PHASE-II ······



# 00. A brief history of a successful partnership

## • A metro for Kochi but not only

- **2013 : AFD provided a financial support to KMRL, through a loan accounting for 20% of the total amount of the Metro project.**
  - **Willingness of KMRL to work on all the topics related to the smooth integration of the metro project into the urban fabric and to benefit from International expertise,**
- **2015: start of a technical cooperation, financed through AFD by funds provided by the French Government (800 K€) to work on:**
- **The implementation of urban pilot projects**
  - **The definition of a strategy for maintenance and operations**
  - **The reduction of operations costs**
  - **The creation of a Unified Metropolitan Transport Authority**

# 00. A brief history of a successful partnership

## • The partners

### INSTITUTIONAL PARTNERS

- Kochi Metro Rail Limited (KMRL)
- AFD, French Agency for development
- SYTRAL (transport authority of the French city Lyon)

### Consulting companies

- Des villes et des Hommes (DVDH)
- EGIS / ADE Transport
- French Metro designers and operators (Keolys, Transdev,...)

### Coordinator

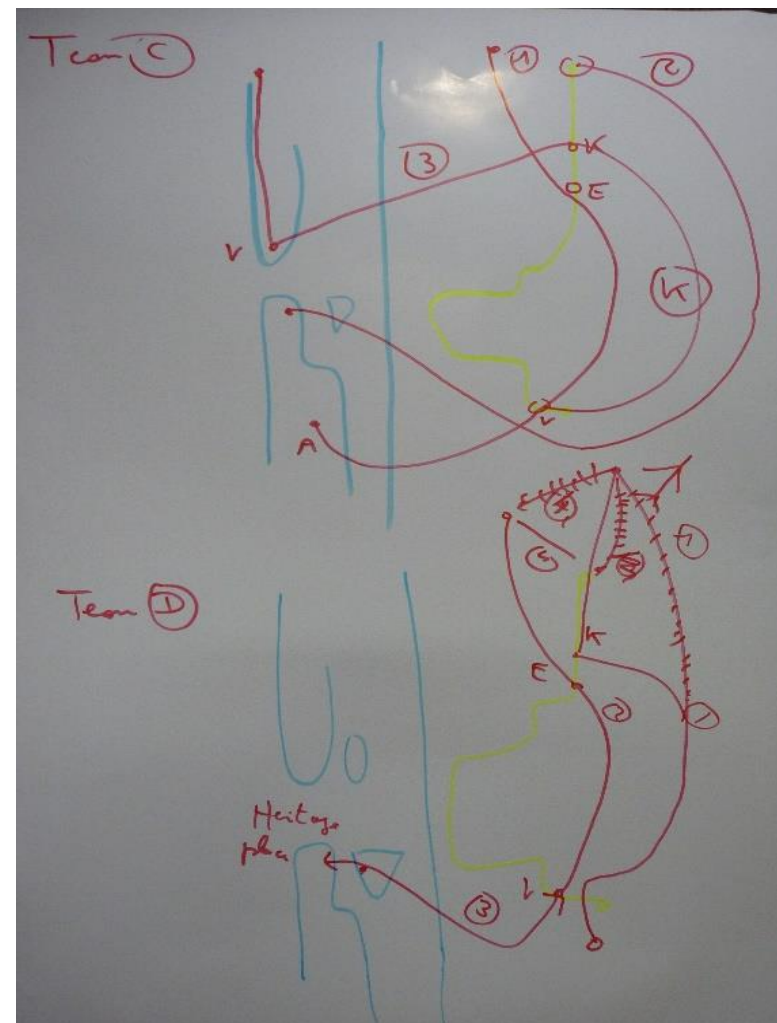
- Codatu, French association whose aim is to stimulate the exchange of knowledge and know-how to promote the implementation of sustainable urban mobility policies in developing countries.
- One representent was full time present in Kochi

## The lessons learnt from this partnership : 5 core values

# 1/5: Cooperation

- The cooperation in practice
  - One person from CODATU full time in Kochi
  - Quarterly brainstorming workshops and yearly study tours
  - Brainstorming sessions gathering the variety of stakeholders involved
  - A project oriented approach
- A way for KMRL to progressively develop its own innovative concepts and proposals, well adapted to the territory and culture of the people of Kerala
- An actual contribution that could seem minimal but that contribute in planting quick-germinating seeds which are already growing and can be seen in the urban projects and in the various initiatives taken to ensure intermodal integration

→ #1- Take the best out of international cooperation



## The lessons learnt from this partnership : 5 core values

## 2/5: Inspiration

- Kochi, commercial capital of Kerala, most vibrant agglomeration in the state
- Kerala Territory and culture taken as a major source of inspiration, reflected in the design and implementation of the project



→ #2 - Take your inspiration and strenght from  
your own territory and culture

**The lessons learnt from this partnership :  
5 core values**

**2/5: Inspiration**

- **What is so special about Kochi Metro ?**
  - **A willingness to prove that any project can be qualitative, sustainable and implemented without corruption (Quick-wins)**
  - **The development of a flat organization, promoting cross-cutting collaboration within the staff and creating internal dynamism**
  - **A powerful communication strategy**
  - **A social resonance (promotion of gender parity, transgender community)**
  - **A WILLINGNESS TO DO MORE THAN A METRO**

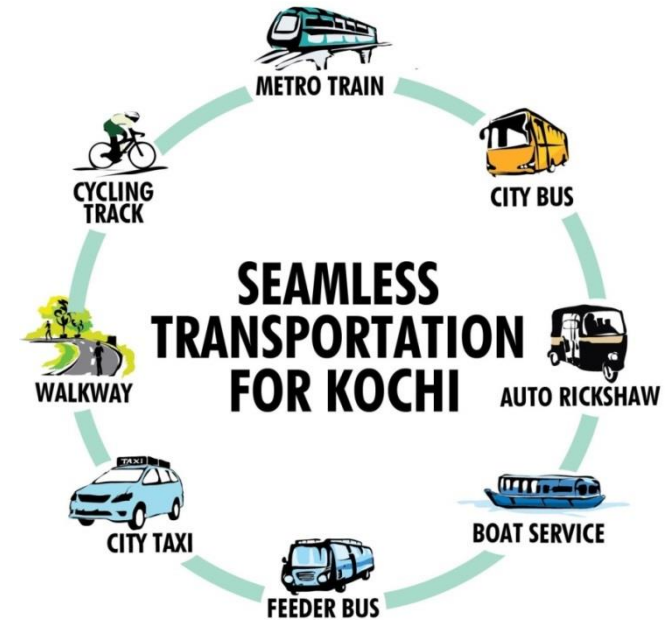
**→ #3 - Create a bold and inspiring  
mindset for your teamwork**



## The lessons learnt from this partnership : 5 core values

## 3/5: Integration

- Be **Users oriented** and not output oriented
- Provide sustainable urban transport **solutions** and not a transport technology
- Do “more than a metro”: Include **all existing modes** of public transport in the reflexion process, to create an **accessible and integrated network for all citizens**.
- KMRL Project motto : Implement “One network, One fare, One timetable”



Exemple in Kochi : re-use of Water Transport (EUR 100 Million),

- 16 routes,
- 78 modern ferries,
- around 38 jetties,
- serving 10 islands,
- Commissioning by the year 2018.

→ #4 - Design a seamless integrated public transport system

## The lessons learnt from this partnership : 5 core values

### 3/5: Integration

- A mobility project = an opportunity to transform the city and its infrastructures, to create a more **inclusive and pedestrian-friendly city**.
- Importance of the development of **open spaces, walkways and cycle-tracks**, to ensure an equitable sharing of the public space among the citizens of Kochi, whether they are car users, pedestrians or cyclists;
- Preparation of a **Master Plan** for NMT in Kochi
- **Pilot project**: Panampilly Nagar, a residential area whose vacant land was transformed into a 750-meterlong walkway cum cycle-track.
- **Open Street days**



→ #5 - Rethink the use of public spaces

The lessons learnt from this partnership :  
5 core values

## 3/5: Integration

- **Institutional integration** to facilitate coordinated planning and manage integrated urban transport systems.
- KMRL committed to initiate the creation of UMTA, necessary to implement the vision “One Network, One Fare, One Timetable”.
- Institutional integration is essential to provide an efficient mobility service to the citizens, through an integration and interconnection of all modes of public transport in the city.

→ #6 – Gather all forces under the common umbrella of an UMTA

**The lessons learnt from this partnership :  
5 core values**

**4/5: Innovation**

- **Kochi One Card : EMV-based smart-card, unique PPP Model**
  - Agreement with AXIS Bank – investment from the bank (AFC), maintenance over 10 years
  - Royalty paid to KMRL for the right to be partner
  - Co-branded credit card
  - Revolution for AFC systems in the metro industry
- **Kochi One Mobile App: Journey Planner + Generation of QR code tickets for travel + payment of utility bills + information on the city services and city life**
  - Joint Project of CSML and KMRL (Smart-city national scheme)

**→ #7 – Get the best out of Intelligent  
Transport System**

The lessons learnt from this partnership :  
5 core values

## 4/5: Innovation

- Promotion of cross-cutting collaboration
  - Weekly « Vertical Meetings » (brainstorming sessions)
- Balance recruitment of men and women + recruitment of a women-empowerment organisation
- KMRL Green initiative



→ #8 – Rely on societal and managerial innovations



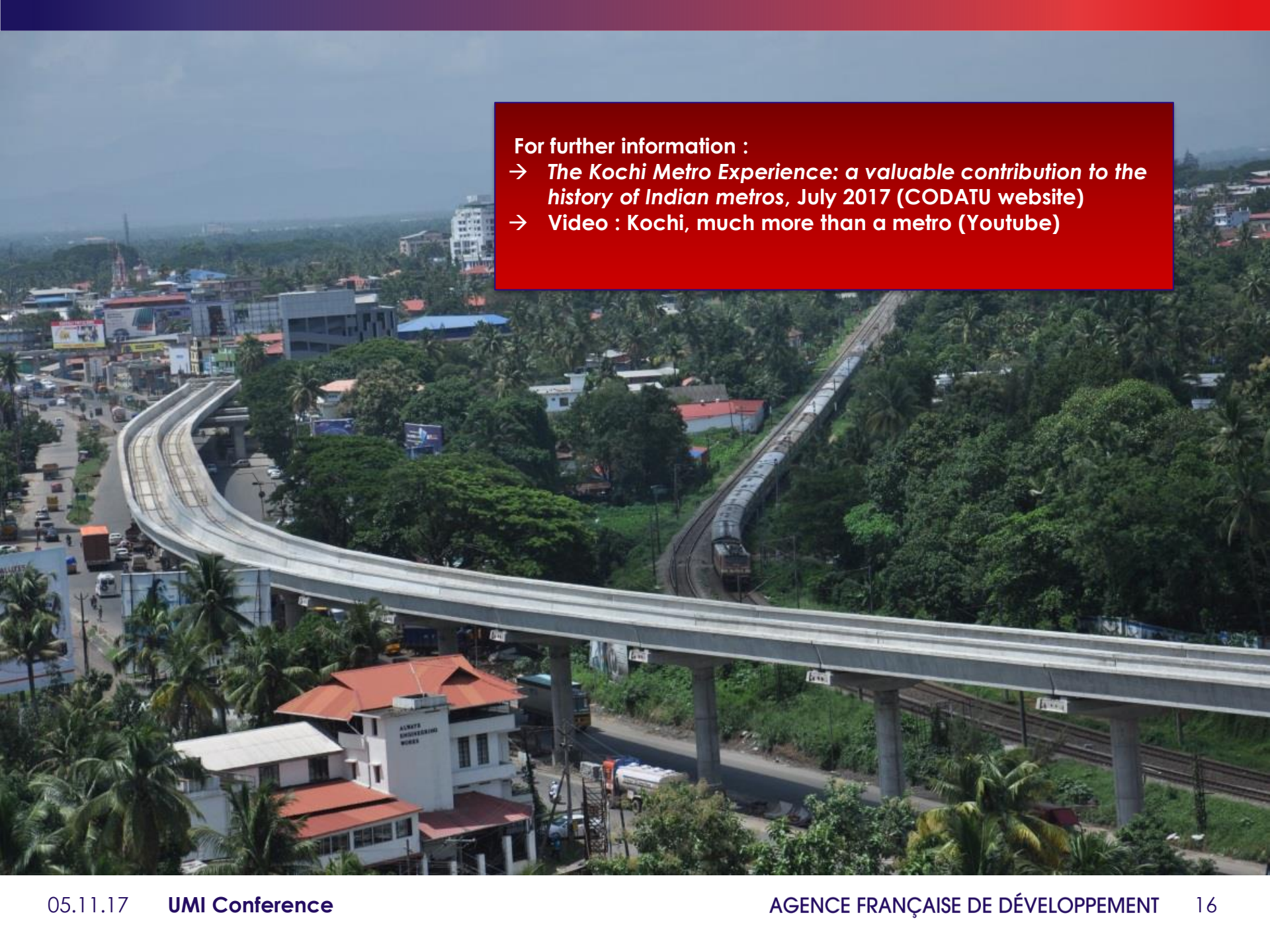
The lessons learnt from this partnership :  
5 core values

5/5:  
Communication

- An efficient Communication Strategy



→ #9 – Take full advantage of a professional communication



For further information :

- *The Kochi Metro Experience: a valuable contribution to the history of Indian metros*, July 2017 (CODATU website)
- Video : Kochi, much more than a metro (Youtube)





**THANK YOU**

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