

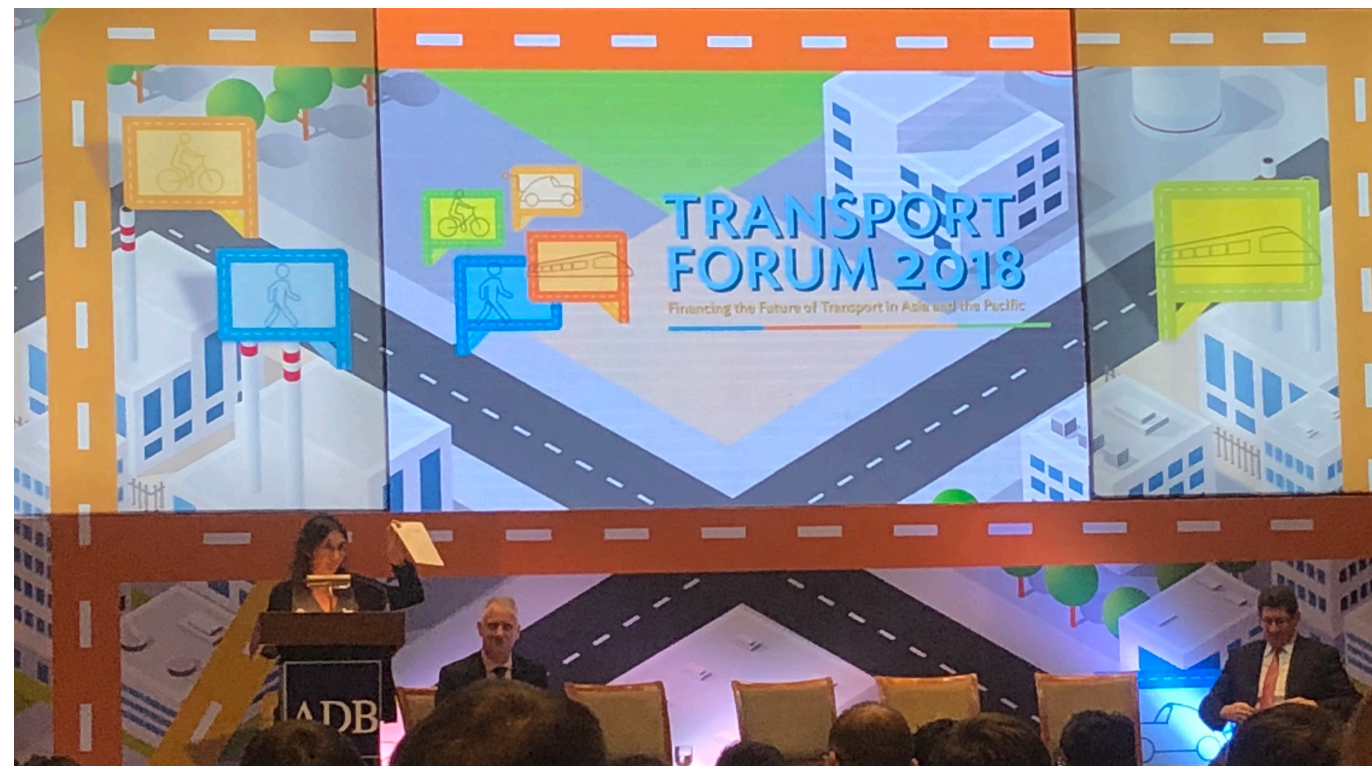
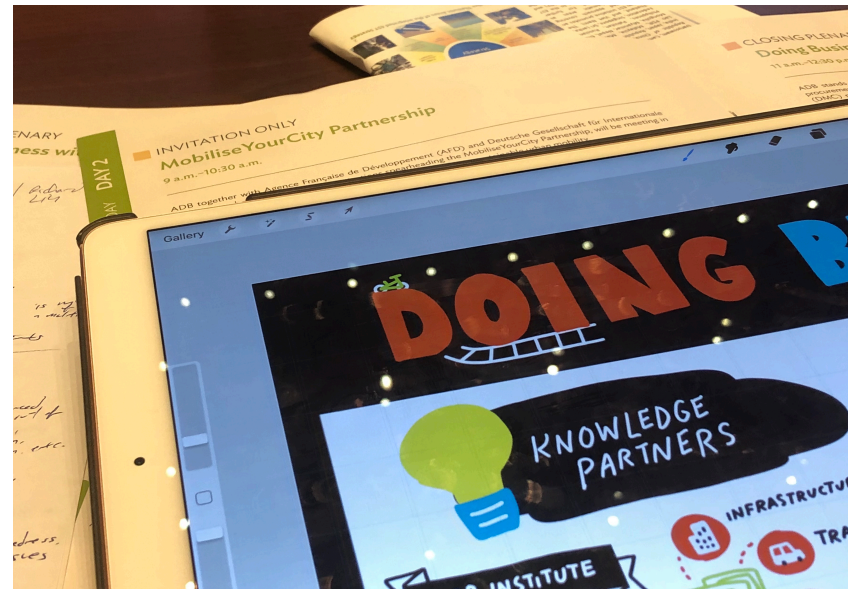


TRANSPORT FORUM 2018

Manila, Philippines 12–14 September 2018

Organized by





High LEVEL FINANCE PLENARY



TRANSPORT SECTOR GOALS



PROSPEROUS



RESILIENT



INCLUSIVE



SUSTAINABLE



SUSTAINABLE
TRANSPORT
FOR ALL!

BAMBANG SUSANTONO



TRANSPORT FORUM 2018
Manila, Philippines 12-14 September 2018

CHALLENGES

AND

RECOMMENDATIONS



MEGUMI
MUTO

DEMAND
for **TRANSPORT**

ADD TRANSPORT
INFRASTRUCTURE
SERVICE!

CLIMATE
CHANGE

OUR CURRENT
DISADVANTAGE

SOLVING MOBILITY
FROM INDIVIDUAL'S
POINT OF VIEW

LOCATION

WILL BE OUR BIGGEST
ADVANTAGE IN THE
NEXT 20 YEARS!

CONNECT TO OUR NEIGHBORS

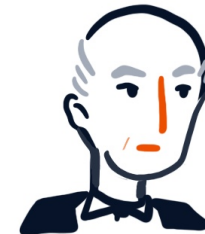
GIVE A SENSE
OF OWNERSHIP
& RESPONSIBILITY!

ALIGN
AIDS &
ASSISTANCE
TO PEOPLE!

LET PRIVATE
SECTOR HELP!



YAMA
YARI



LAWRENCE
GREENWOOD

SHIFT FROM

BANK
CENTRIC
PERSPECTIVE

PPP
WINNING
FORMULA:

THE
FINANCE
GAP!

ALMOST
200 B.

PRIVATE
SECTOR
HAS TO
FILL THIS
GAP

CREDIT
ENHANCEMENT

- NEED GOV. RIGHTS
- REGULATORY CERTAINTY
- IMPROVED RISK ALLOCATION



**TRANSPORT
SECTOR** IS
CRUCIAL TO COUNTRY
DEVELOPMENT !!!



TAKEHIKO
NAKAO

MOBILIZE
PRIVATE
SECTOR!

SUPPORTING
PRIVATE
SECTOR
LENDING

ESTABLISH
FRAMEWORKS!



PUSHPIN
VISUAL SOLUTIONS



INNOVATIVE TRANSPORT TECH

AUTONOMOUS VEHICLES

REPLACING THE HUMAN DRIVER

ENABLING TECHNOLOGIES TODAY

- SENSORS
- MAPS
- COMMUNICATION
- INFRASTRUCTURE

DETECTING ROAD DAMAGE

MOBILIZING PEOPLE WITH DISABILITIES

DEMAND NEAR-ZERO FATALITIES

NEW TECH IS BEING ADOPTED BY DEVELOPING COUNTRIES BECAUSE OF THEIR GREATER NEED

TECHNOLOGY IS EVOLVING FAST!

IN THE BLINK OF AN EYE, MOBILITY BECAME AVAILABLE AT YOUR FINGERTIPS!

DIGITALIZATION & AUTOMATION

USING DRONES TO MANAGE TRAFFIC & TRANSPORT ITEMS

CONVERGENCE

MOBILITY BECOMES

- SHARED
- ELECTRIC
- AUTOMATED

IMAGINE THE FUTURE & MAKE IT SO!

RETROFITMENTS

BY 2017... ALL NEW VEHICLES WILL BE PURE ELECTRIC VEHICLES!

ADAPT OLD CARS BY:

RETROFITMENT

- REDUCED POLLUTION
- IMPROVED FUEL ECONOMY
- LOW INSTALLATION & MAINTENANCE COSTS

EMOBILITY

MOTIVATIONS:

CO₂ REDUCTION
↓ URBAN POLLUTION

CAR NUMBERS WILL DOUBLE BY 2040!

INCREASED POLLUTION

CONCERNS:

- EXPENSIVE
- NO CHARGING STATIONS
- LIMITED RANGE IN SINGLE CHARGE

FOCUS

HIGH MILEAGE VEHICLES
CITIES
LARGE FLEETS

OPTIMIZE

CHARGING STATIONS
BATTERY POLICY

INCENTIVIZE

INCLUDE NON FINANCIAL VENTURES



TRANSPORT FORUM 2018

Manila, Philippines 12-14 September 2018

ADB



PUSHPIN
VISUAL SOLUTIONS

E-VEHICLES *and* NEW TRANSPORT TECH



EMOBILITY around the WORLD



CHINA'S E-BUS

LEADING
IN E-BUS
PRODUCTIONS

MORE
POWERFUL
AND
ENERGY
EFFICIENT

E-BUS TECHNOLOGY

- USE SMALL BATTERIES FOR FASTER CHARGE

COST EFFICIENCY

ECONOMICS

- LOWER MAINTENANCE IF HUGE FLEET SIZE
- HIGH OWNERSHIP COST

CO₂ EMISSIONS



BUS



PRIVATE
CAR

FOCUS ON LARGE
VEHICLES =
LARGER CO₂
IMPACT

WHY EV?



LOWER
CARBON
EMISSIONS



LOWER
AIR POLLUTION
LEVELS



LESS NOISE



TAIWAN E-SCOOTER PROGRAM

SOLVING THE POLLUTION
PROBLEM FROM MOTORCYCLES

PROMOTING E-BIKES!

- INCENTIVIZE OWNERSHIP
- IMPROVE PERFORMANCE
- ENVIRONMENT FRIENDLY
- AS CREATIVE BUSINESS
- STANDARDIZATION



INDIA'S CHARGING SCHEME

SHARED

ELECTRIC

CONNECTED

TECHNOLOGY
DEVELOPMENT

DEMAND
CREATION

PILOT
PROJECTS

CHARGING
INFRASTRUCTURE

ARMENIA'S E-TRANSPORT INITIATIVE



- GOOD OPPORTUNITY FOR RAILWAY & CABLEWAY DEVT

- PROVIDE TAX ADVANTAGES + INFRASTRUCTURES FOR E-VEHICLE OWNERS



PHILIPPINES E-JEEPNEYS

- NON EXISTENT POLICIES IN PH

PUSHING FOR
E-BILL!

- ONLY PRIVATE SECTORS IN

NEED:

- FUNDS
- NATIONAL AWARENE
- INCENTIVES



TRANSPORT FORUM 2018

Manila, Philippines 12-14 September 2018



PUSHPIN
VISUAL SOLUTIONS

ADB's SUSTAINABLE URBAN TRANSPORT program

STRATEGIES IN PROMOTING SUSTAINABLE URBAN TRANSPORT

WHY SUT?

- SOLVING GOALS**
- AIR POLLUTION
 - TRAFFIC CONGESTION
 - UNSAFE ROADS

GOALS



SAFE
AFFORDABLE

ENVIRONMENTALLY FRIENDLY

ACCESSIBLE

SLOW PROJECT TRANSITIONS?



BUILD SUT PROJECT PIPELINES!

LONG TERM ENGAGEMENTS

PROJECT PREPARATION & READINESS

REALISTIC EXPECTATIONS

MORE UPSTREAM DIALOGUE

TRANSPORT FORUM 2018
Manila, Philippines 12-14 September 2018

KARACHI BRT PROJECT

-RESTRUCTURING THE WHOLE FACADE OF THE BRT

• INNOVATIVE LANE STRIP

• USE OF GREENERIES TO FACILITATE DRAINAGE

• PEDESTRIAN/BIKE WALK



ENSURE FINANCIAL SUSTAINABILITY w/o OPERATIONAL SUBSIDIES

NETWORK INTEGRATION TO ENSURE HIGHER RIDERSHIP

OTHER FEATURES



• RAMP FOR PWD
• FEMALE ONLY SECTIONS

• BIKE RENTAL NEAR STATIONS



AFD MOBILITY STRATEGIC FRAMEWORK + MOBILIZE YOUR CITY PARTNERSHIP

GUIDING PRINCIPLE

AVOID - SHIFT - IMPROVE - ENABLE

MYC OBJECTIVES:

REDUCED TRANSPORT-RELATED GHG EMISSIONS

TRANSFORMATIONAL CHANGES

MORE COMPREHENSIVE, INTEGRATED, PARTICIPATORY PLANNING

MYC ENABLES CITIES TO TAKE THE RIGHT STEPS TO SUSTAINABILITY



SUT CORRIDOR: YICHANG CHINA

✓ INNOVATIVE DESIGN

✓ REMOVED SETBACK PARKING

✓ BIKE SHARING IMPLEMENTATION

LOCAL GOV'T BUY IN: IMPORTANT!!!

COSTS NOT TOO EXPENSIVE

CAN BE QUICKLY IMPLEMENTED (1 YR!)

COLLABORATION

PROJECT TOTAL COST: \$500M

\$150M ADB FUNDING

URBAN DEV PROJECT RATHER THAN JUST A TRANSIT PROJECT!



PUSHPIN
VISUAL SOLUTIONS

REGIONAL CONNECTIVITY

ESCAP

TRANSPORT:
KEY DRIVER OF
ECONOMIC GROWTH,
GENERATOR OF
EMPLOYMENT



STATUS QUO

BARRIERS TO TRADE ↓
SPEED & AVAILABILITY OF PRODUCTS ↑

INCREASED TRANSPORT
DEMAND FOR MORE
TRADE WITHOUT
BURDENING THE
ENVIRONMENT!



TRANSPORT FORUM 2018
Manila, Philippines 12-14 September 2018

CONNECTING THE
RAILWAYS OF THE
GREATER MEKONG
SUBREGION

NEED A
LOT OF
RESOURCES
TO SUPPORT
REGIONAL
CONNECTIVITY



GMRA MISSION:

INCREASED
REGIONAL
RAILWAY
CONNECTIVITY

PROMOTE
EFFICIENT,
SAFE, SUSTAINABLE
TRANSPORT



CONNECTIVITY
IN INDUSTRY
DEVELOPMENT

THAILAND
ONE OF THE
BIGGEST
AUTOMOBILE
PRODUCERS
IN THE 90's



POSSIBLE
BECAUSE OF...

1 GOVERNMENT
INVESTMENT
2 SHIPPING
PRODUCTION
NEEDS ABROAD

INVESTMENTS
IN
TRANSPORTATION-RELATED
INFRASTRUCTURE

REDUCED MANUFACTURING
COSTS
AUTOMOBILE
SECTOR
DEVELOPMENT



CAREC

TRANSPORT SECTOR
WORK PILLARS

- ROAD SAFETY
- RAILWAYS
- TRAIN FACILITIES
- ROAD ASSET MGT
- AVIATION

CAREC

PRODUCES MANUALS/
HANBOOKS ON STRATEGIES +
TRANSPORT POLICIES TO
EDUCATE COUNTRIES IN
TRAINING + CAPACITY DEV

RECOMMENDATION

OPEN SKIES

ECONOMIC GAINS

ADB

PUSHPIN
VISUAL SOLUTIONS

INNOVATIVE FINANCE

almost
\$200B
FINANCIAL GAP
ONE SOLUTION:
PPP
PUBLIC-PRIVATE PARTNERSHIPS



HARNESSING PROFIT
to deliver Public service

PRIVATE SECTOR HAS A WALL OF MONEY TO SPEND ON ASSETS!



CHALLENGES

GOV'T SPENDING ALONE CANNOT SUPPORT GROWTH,
the
PRIVATE SECTOR
NEEDS TO HELP



WHY EXPECT PRIVATE SECTOR TO TAKE A RISK ON YOUR MANAGEMENT?

PRIVATE SECTOR DON'T ALWAYS UNDERSTAND HOW PUBLIC SECTORS WORK

RISK



REVIEW TOTAL COST OF PROJECT

ADDRESS RISKS W/IN PROJECT

RISK MANAGEMENT
is key

STREAMLINE
PPP RULES



TRANSPORT FORUM 2018
Manila, Philippines 12-14 September 2018



PUSHPIN
VISUAL SOLUTIONS

CLIMATE MITIGATION and TRANSPORT



ASIAN EST INITIATIVE

CLIMATE / RESILIENCE

AIMS TO BUILD A COMMON UNDERSTANDING OF EST & THE NEED TO ADOPT INTEGRATED APPROACH OF TACKLING MULTISECTORAL TRANSPORT & ENVIRONMENTAL ISSUES

AVOID SHIFT IMPROVE

THE CHALLENGE

CAPACITIES OF EACH CITIES TO TACKLE ISSUES + FINANCING

LACK OF UNDERSTANDING OF ENVIRONMENTAL CO-BENEFITS

BEST PRACTICE FOR E-TRANSPORT

MINDSET SHIFT

FUND MOBILITY, NOT ROAD CONSTRUCTION

NOT JUST FOR POOR

SAFETY!

C40

TOWARDS A HEALTHIER & MORE SUSTAINABLE FUTURE!

ACHIEVING DEADLINE 2020



TRANSPORT



BUILDINGS



WASTE MGT

PROCURE E-BUS

ENSURE 0-EMISSIONS

ENCOURAGE WALKING + BIKING!

THE CHALLENGE

HARMONIZING DATA FROM AROUND THE WORLD

BEST PRACTICE FOR E-TRANSPORT

MORE GREEN SPACES

URBAN PLANNING

GHG ACCOUNTING

REQUIRING COUNTRIES TO REPORT THEIR GHG EMISSIONS



WOMEN EQUALITY



SAFETY & EFFICIENCY



GREEN TRANSPORT

TRAFFIC VOLUME x EMISSION FACTOR = EMISSION

(NORMAL + DIVERTED TRAFFIC) = VEHICLE SPEED x FUEL EFFICIENCY

THE CHALLENGE

ACCURATELY QUANTIFYING THE MOVING TARGETS

WHICH REQUIRES ... FUEL EFFICIENCY TECH ADVANCEMENT

BEST PRACTICE FOR E-TRANSPORT



MINDSET SHIFT



POLICY MAKERS BUY-IN

VIETNAM MINISTRY OF TRANSPORT

PROGRESS IN GHG EMISSION REDUCTION & TRACKING



NAMA BUS PROJECT



MRV FOR GHG REDUCTION ACTIVITIES



2014 GIZ INVENTORY



GHG EMISSION REDUCTION SCENARIOS

IMPORTANT TO QUANTIFY BECAUSE

TO ACHIEVE GLOBAL STANDARD! (BUT WE LACK THE MANPOWER...)

THE CHALLENGE

THIS IS THE BEST WAY TO QUANTIFY CO2 EMISSIONS!



CROSS CHECKING DATA

IMPORTANT!

QUANTIFY DATA ACCURATELY TO GET PROPER FINANCING



TRANSPORT FORUM 2018, Manila, Philippines 12-14 September 2018



PUSHPIN VISUAL SOLUTIONS

RAIL TRANSPORT




UNLESS WE HAVE A **STRATEGY** TO LOOK AT SUSTAINABILITY THERE WILL BE AN ISSUE.

CHALLENGES

- Capital intensive
- only P to P transit
- limited resources & competing needs

INNOVATIONS!

- Standardize Components
- One Nation, One Card

GOOD RIDERSHIP + COST EFFECTIVE MEASURES



THINK OUT OF THE BOX!

Think of other financing besides private funds

SUPPORTED BONDS

TARGETED TAXES

TRANSIT ORIENTED DEVELOPMENTS

LONG TERM MAINTENANCE CONTRACTING

PPP NOT JUST FOR FINANCING, BUT ALSO FOR OPERATIONS, DESIGN, and REVENUE ECOSYSTEM



A RELIABLE, FAST, AND RELIABLE MASS TRANSIT SYSTEM CAN BROADEN **SPREAD OF DEVELOPMENT**

NECESSARY FEATURES FOR SUCCESSFUL PUBLIC TRANSPORT SYSTEM

- SAFETY
- MODAL INTEGRATION
- ACCESSIBILITY
- AFFORDABILITY
- TRAVEL TIME
- COMFORT
- RELIABILITY



SHARING **EXPERIENCES** IS A GOOD TUTOR.

CONTINUOUS IMPROVEMENT

ACTING AT THE RIGHT TIME CAN YIELD GAINS IN THE FUTURE

UPDATE KNOWLEDGE

GROW EXPERIENCE

MANAGERS and ENGINEERS

OPERATING and CONSTRUCTION

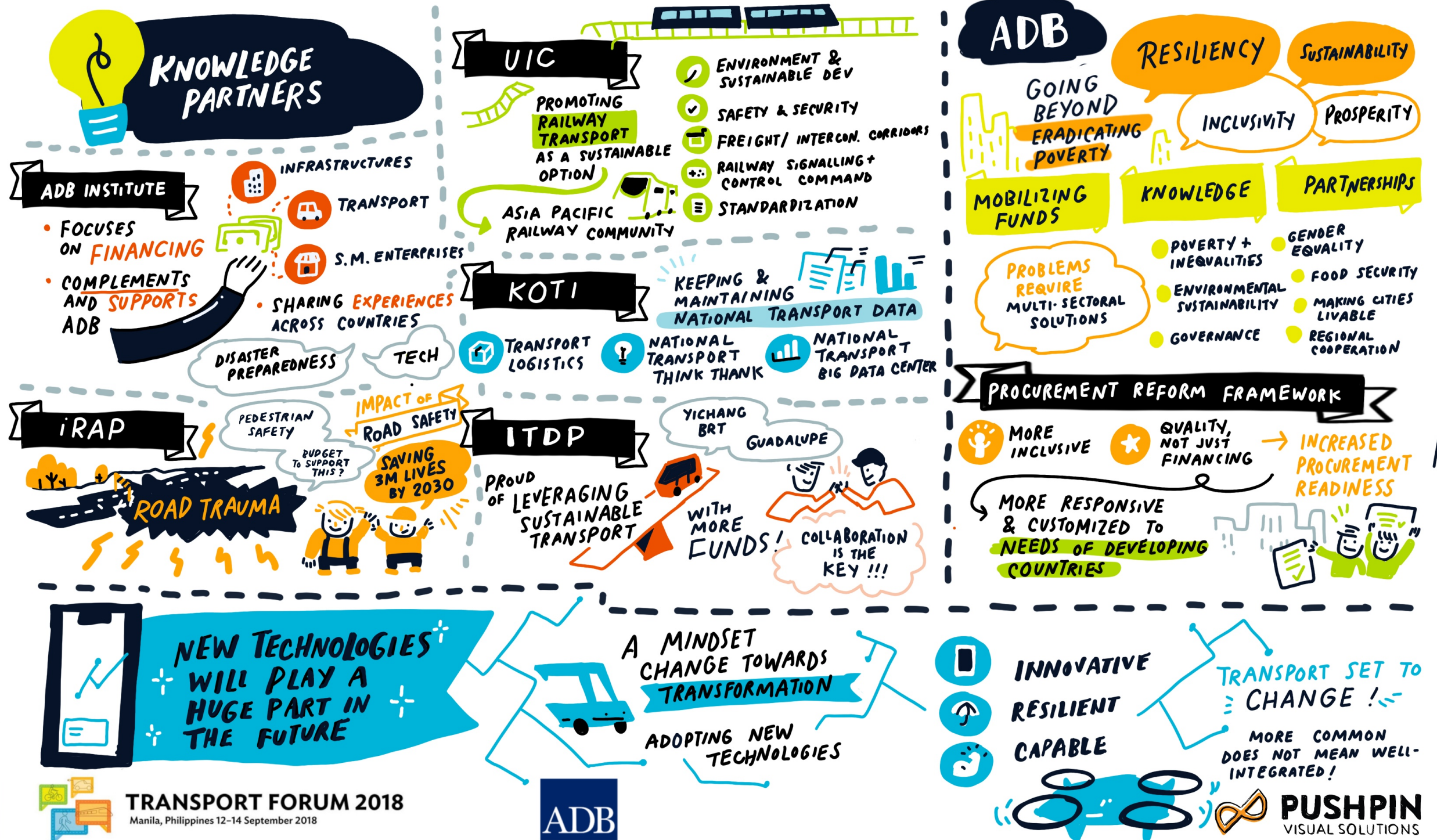


TRANSPORT FORUM 2018
Manila, Philippines 12-14 September 2018



PUSHPIN
VISUAL SOLUTIONS

DOING BUSINESS with ADB



Graphic Facilitation by:



PUSHPIN
VISUAL SOLUTIONS

Ideas. Made to Stick.

hello@pushpinvisuals.com

www.pushpinvisuals.com

