

GREEN FREIGHT AND LOGISTICS FOR SUSTAINABLE CITIES

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CHALLENGES OF URBAN LOGISTICS

- Globalization: decentralized production
- Urbanization: total dependency on outside energy, food and materials
- Urban areas are complex systems
- Urban logistics is a relatively unexplored policy and business area

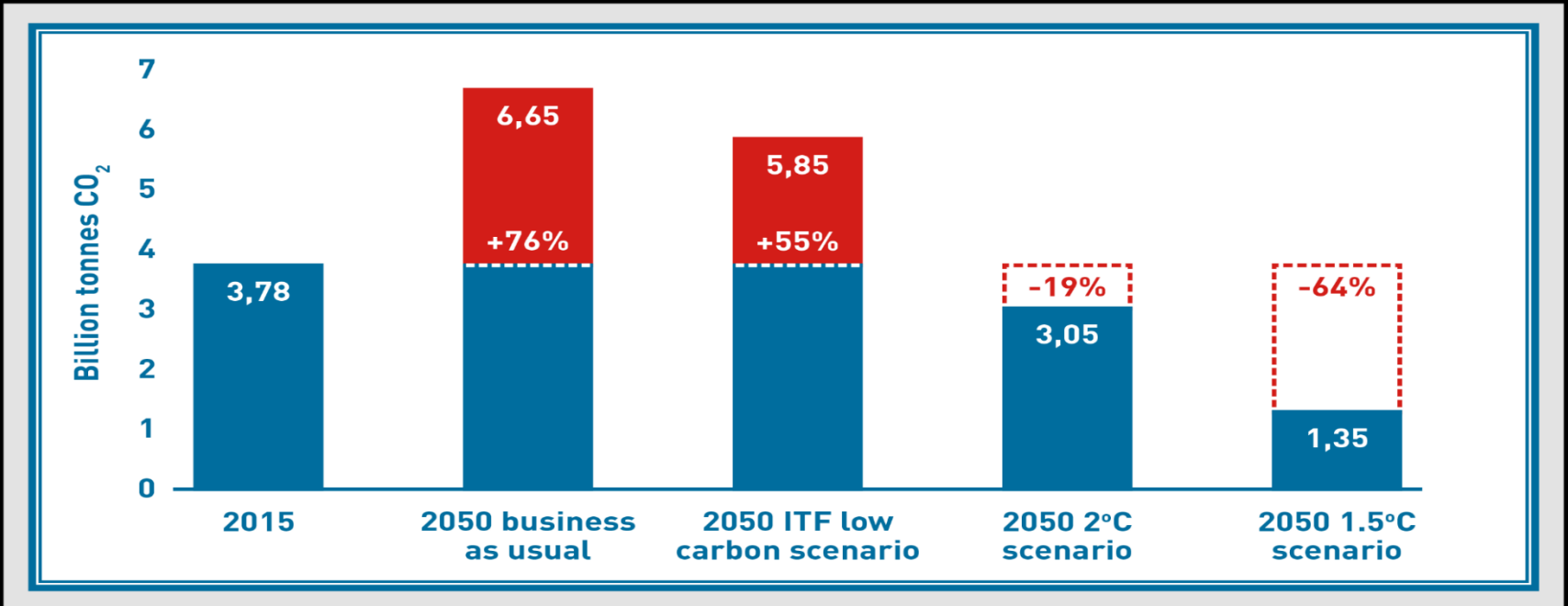
CHALLENGES OF URBAN LOGISTICS

- There are many ideas about urban logistics, but few have been tried and even less experience has been shared
- Many different stakeholders are involved aside from city government, but not regarded as a priority
- Urban logistics is a no-man's land, often invisible to decision-makers and citizens who wake up after goods are delivered, and go to sleep before trucks return to the urban area

CHALLENGES OF URBAN LOGISTICS

- Urban logistics are a “poor cousin” of urban mobility and transport policies and plans for people
- Often, business-owners are resistant to change, even if change will improve the situation given the chance
- It can be hard to find physical space to accommodate supporting facilities.

LOGISTICS PROVE A CHALLENGE FOR CLIMATE CHANGE...



Smart Freight Centre (2017). Smart Freight Leadership, based on data from ITF Transport Outlook 2017 and SLoCaT 2016

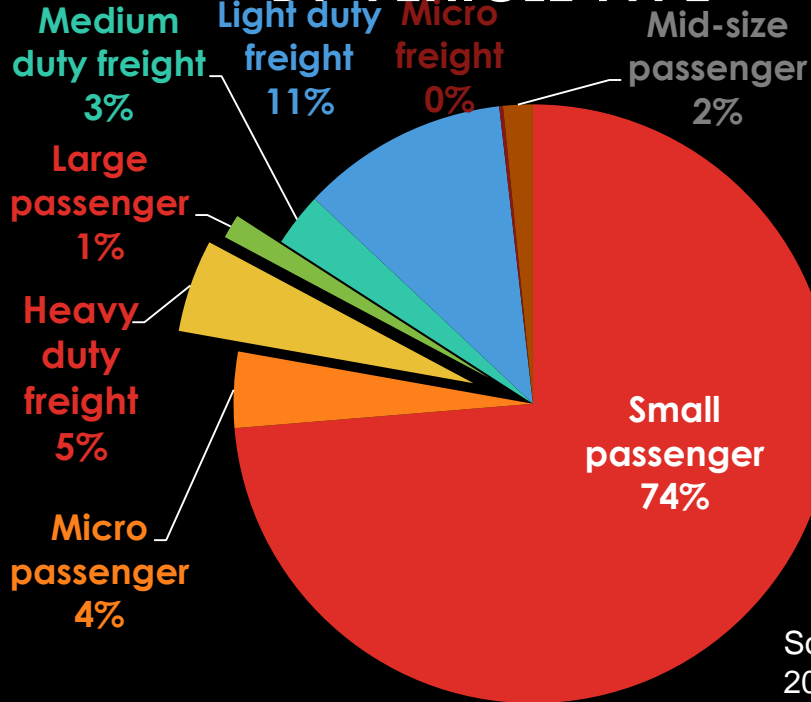
...AND AIR POLLUTION

Diesel trucks are just 5% of China's vehicle fleet



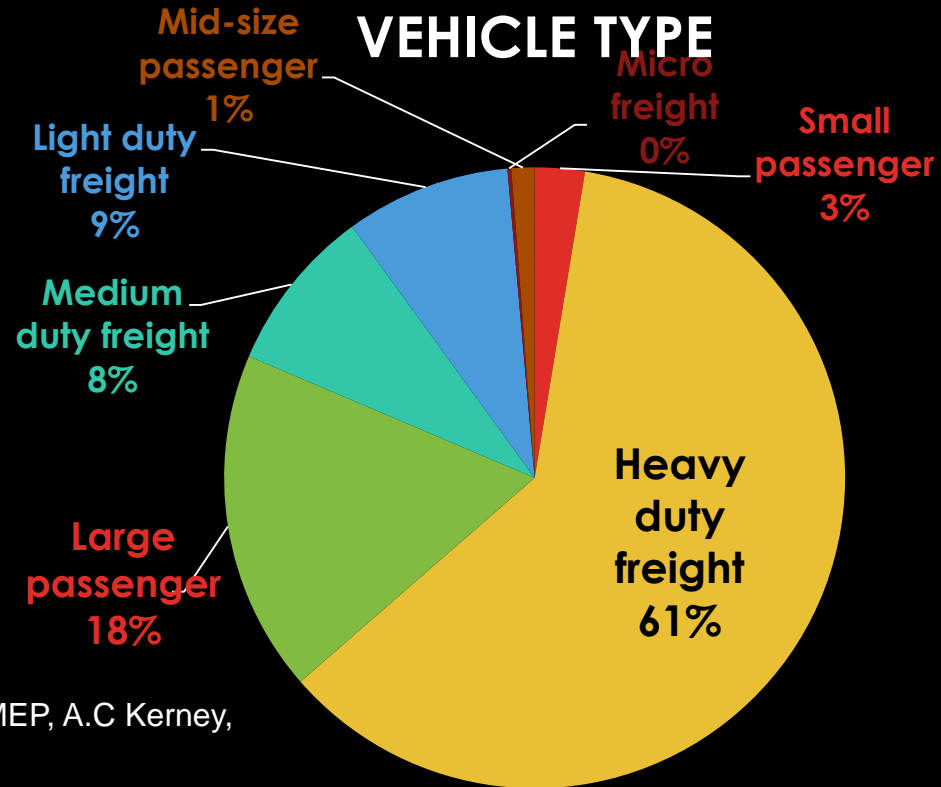
But they emit 61% of all vehicular particulate matter (79% with buses)

CHINA VEHICLE POPULATION BY VEHICLE TYPE



Source: MEP, A.C Kerney, 2011

SOURCE OF PM EMISSION BY VEHICLE TYPE



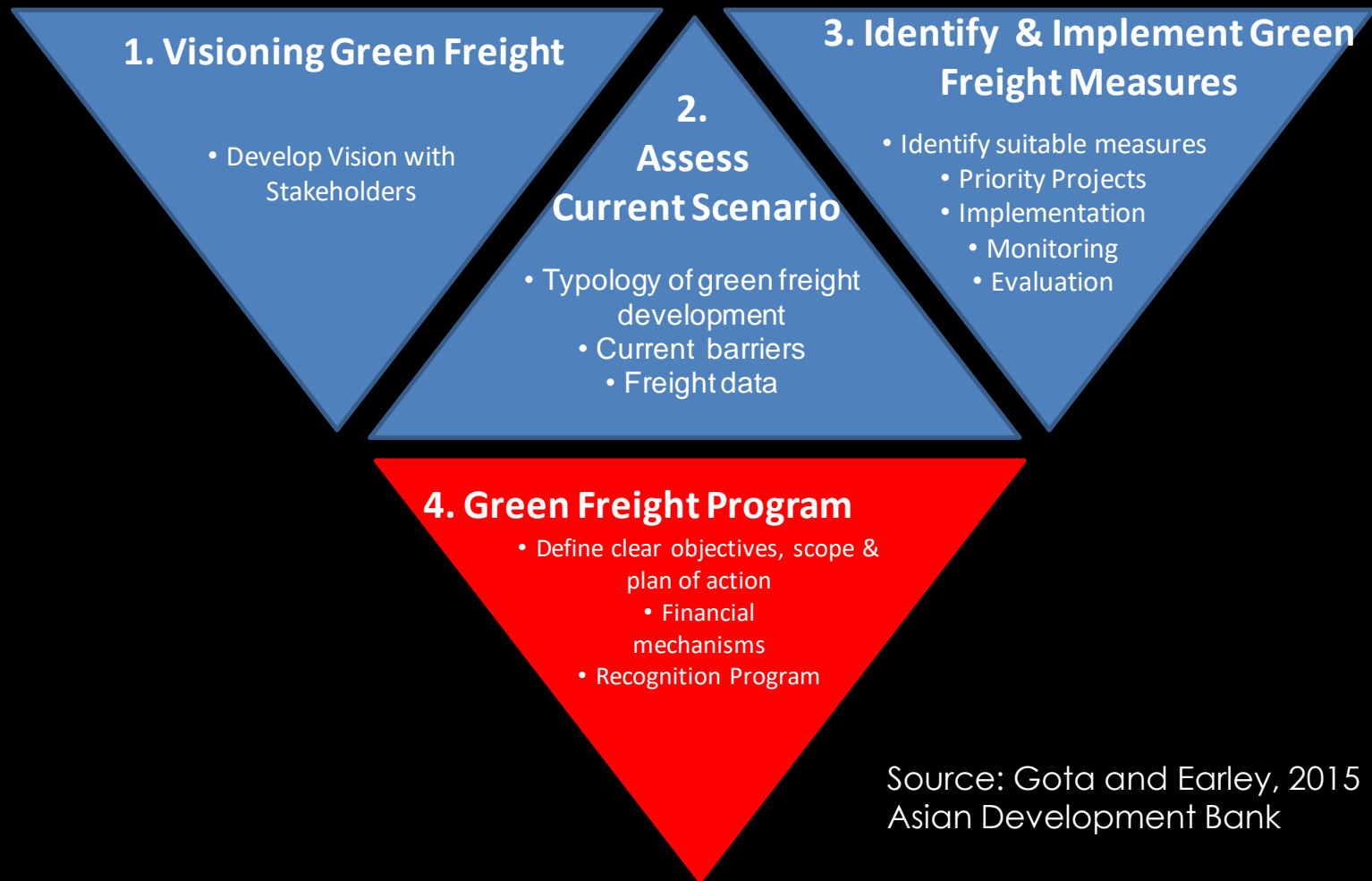
World Health Organization International Agency for Research on Cancer (WHO-IARC)
June 2012

Diesel exhausts cause cancer and climate change

WHAT IS GREEN FREIGHT AND LOGISTICS?

- reduces the environmental, climate and public health impacts through reduced air pollution and greenhouse gas emission intensity;
- improves social conditions, including road safety, and health and working conditions of people involved in freight movement; and
- enhances economic development through improved energy efficiency, fuel security, and efficiency and competitiveness of the freight and logistics sector overall

BEST PRACTICES IN GREEN FREIGHT



Source: Gota and Earley, 2015
Asian Development Bank

VISION

Defines the optimal desired future state of what you want to achieve over time and provides guidance and inspiration



GOALS

States an ambitious commitment to address a single challenge in support of an overarching vision



KPIs

Measure progress toward defined goals and should be relevant, comprehensive, transparent, and feasible to measure

MEASURES FOR GREENER FREIGHT AND LOGISTICS

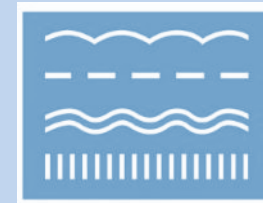
Vehicles & Fuels



Freight Movement



Transport System



Source: Smart Freight Centre

- Cleaner fuels
- Cleaner and efficient technologies
- Cleaner and efficient vehicles
- Inspection and maintenance

- GPS & ICT
- Driving behavior
- Fleet management
- Increase load factor
- Reduce empty runs
- Reduce trips
- Logistics centers and warehouse management
- Asset management and sharing
- Restructure supply chains

- Multi-modal freight optimization
- Shift from trucks to trains, barges, motorbikes, cargo bikes
- Infrastructure transport, fuels, ICT

URB
INIT
New York

Sep. 20
nyc.gov/d

California Freight

Seattle Department
**CITY OF
FREIGHT**

Washington State
Department of Transpo

Washington State FREIGHT EXECUTIVE SUMM

We can

Transport for London

London Freight Plan

sustainable freight distribution:
a plan for London

MAYOR OF LONDON

Transport for London

CITY OF PORTLAND
OFFICE OF TRANSPORTATION

CITY VISIONS

London

- “...the safe, reliable and efficient movement of freight and servicing trips to, from, within and, where appropriate, through London to support London’s economy, in balance with the needs of other transport users, the environment and Londoners’ quality of life...”

Seattle

- “A vibrant city and thriving economy, connecting people and productions within Seattle and to regional and international market”

ALMADA, PORTUGAL

- Historic Mid-Sized European City – tourism and pedestrian oriented
- Initial mobility plan moved cars off the street, but freight vehicles still needed to access businesses, and local businesses demanded service
- Developed an Zero-Emission Vehicle Zone and a local distribution area a shuttle's ride away from the pedestrian zone



ALMADA, PORTUGAL

- Approach to be followed in 2012:
 - – Only 2 vehicles allowed to circulate: electric mini-buses from the flexible bus service – FLEXIBUS, Mobility Inclusive Service of Almada
 - – Central part of the street reinforced to support the weight of the minibuses and goods delivery vehicles (ZEVs)
 - – Logistic system will be based on a centralized freight center, (ICT) allowing the consolidation of goods in a nearby hub
 - – Logistics scheme studied in the framework of an European funded project: ENCLOSE, ENergy efficiency in City LOfistics Services for small and mid-sized European Historic Towns

OUTCOMES OF GREEN FREIGHT PLANNING

- Freight is given a role in the urban discussion
- A picture of freight and urban logistics is clear to all stakeholders
- Each stakeholder can be heard and challenges can be avoided in this uncertain and new field
- Green freight means less local pollution, less contribution to climate change, less traffic and better access to services
- In times of emergency, there is a clear understanding of challenges and weaknesses, resources and opportunities – and a social network on which to cooperate.

GREEN FREIGHT CAN CHANGE THE WORLD!

Let's work on it together

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