

Despacio

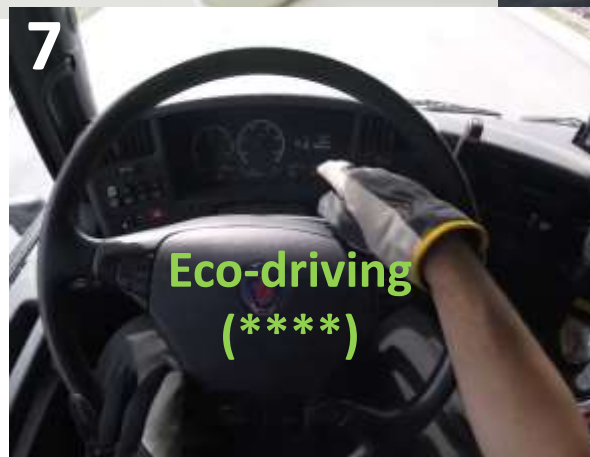
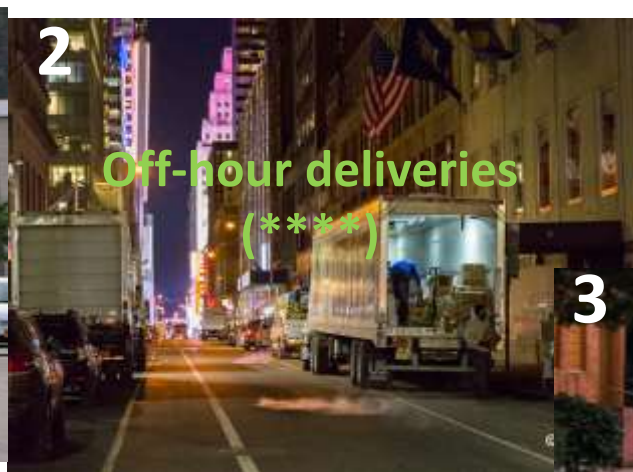
Introduction to urban logistics

- *Urban distribution: modes diversity*, routs, schedules, goods, etc.
- *Urbanization*: by 2050, **7 of 10** people will live in large cities
- Increase in **large cities and megacities**: LatAm – CDMX, Sao Paulo, Buenos Aires, Lima, Santiago.
- *Vertical growth*, there are more and more inhabitants per unit area
- Lack of adequate infrastructure

Where do we buy? *Nanostores*



Source: Dinero Magazine, 2017



Study Cases in Latin America:

- ❖ Micro center of CABA, Argentina
- ❖ Cargo bikes in Colombia
- ❖ Off-Hour delivery pilot in Bogota, Colombia
- ❖ Freight Loading and Unloading Zones

Micro center of CABA (Ciudad Autónoma de Buenos Aires), Argentina

Micro center of CABA, Argentina

Before



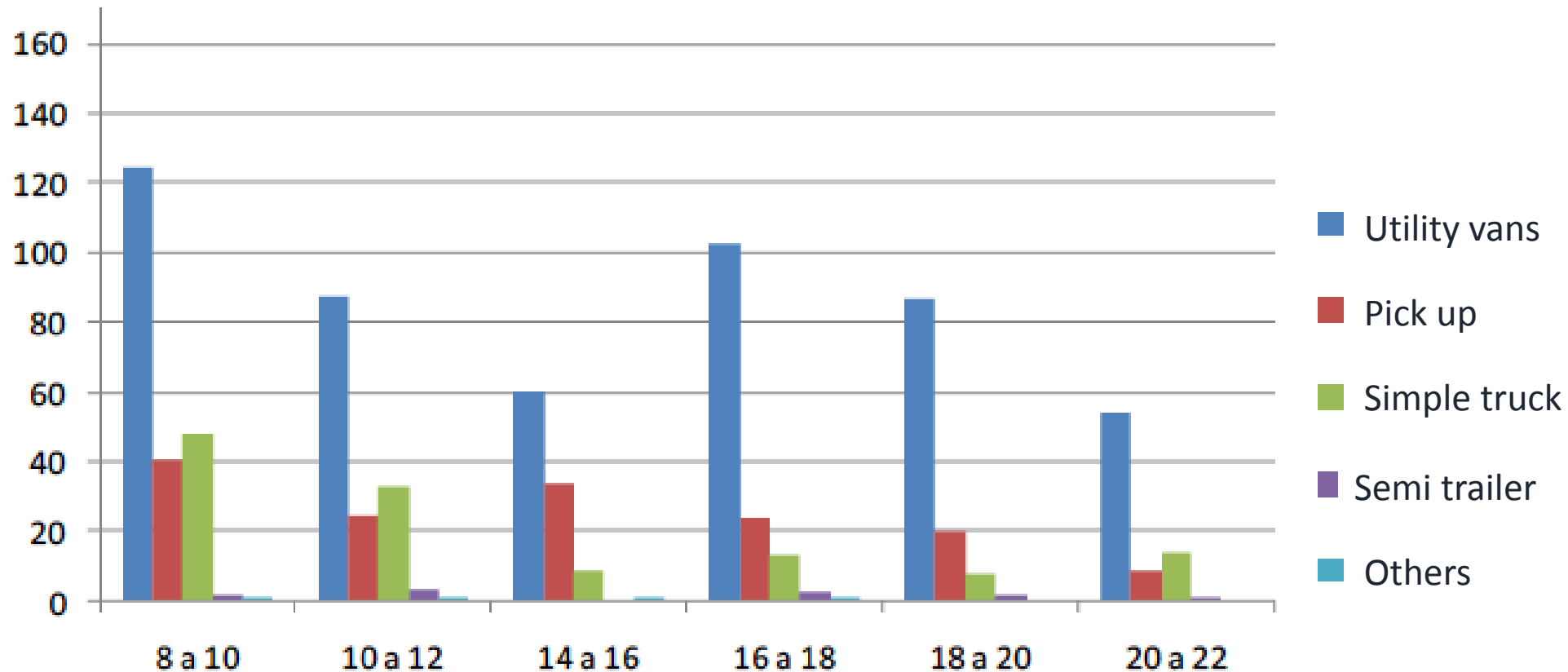
After



- More than 1.400 stores (60% of the total) belong to 4 items
- 2.260 shops require supply in this area (not considering offices)

Micro center of CABA, Argentina

Vehicle Volume per hour, vehicle type
and time zone



Maximum vehicular
flow between 8 and
10 in the morning

75% of loading and
unloading
operations before
noon.

Source: ITBA, 2014

Micro center of CABA, Argentina – results: negative effects



- **Blue boxes:** “there is only one blue box per block”
- **Vehicular restriction:** “an increase in trucks will translate into an increase in the demand for labor.”
- **Off-hour deliveries:** not used because insecurity, noise, lack of personal from receivers

CycleLogistics (cargo bikes)

2018



1975



2003



Bogota
Cartagena
Medellín
Barranquilla

Off-Hour delivery pilot in Bogota

Off-Hour delivery pilot in Bogota



Companies involved



Source: Mobility Secretariat of Bogota



Off-Hour delivery pilot in Bogota-Results



- A total of **22 routs were registered** within the companies
- The operation **performance** of compared in day and night,
- **Direct observation and tracking routes of the vehicles with GPS devices and ArcGIS**

Evaluation of the results:

For the development of the project, topics of analysis were set for:

Mobility

Logistics performance

Security

Environment

Perception

Off-Hour delivery pilot in Bogota-Results



Security

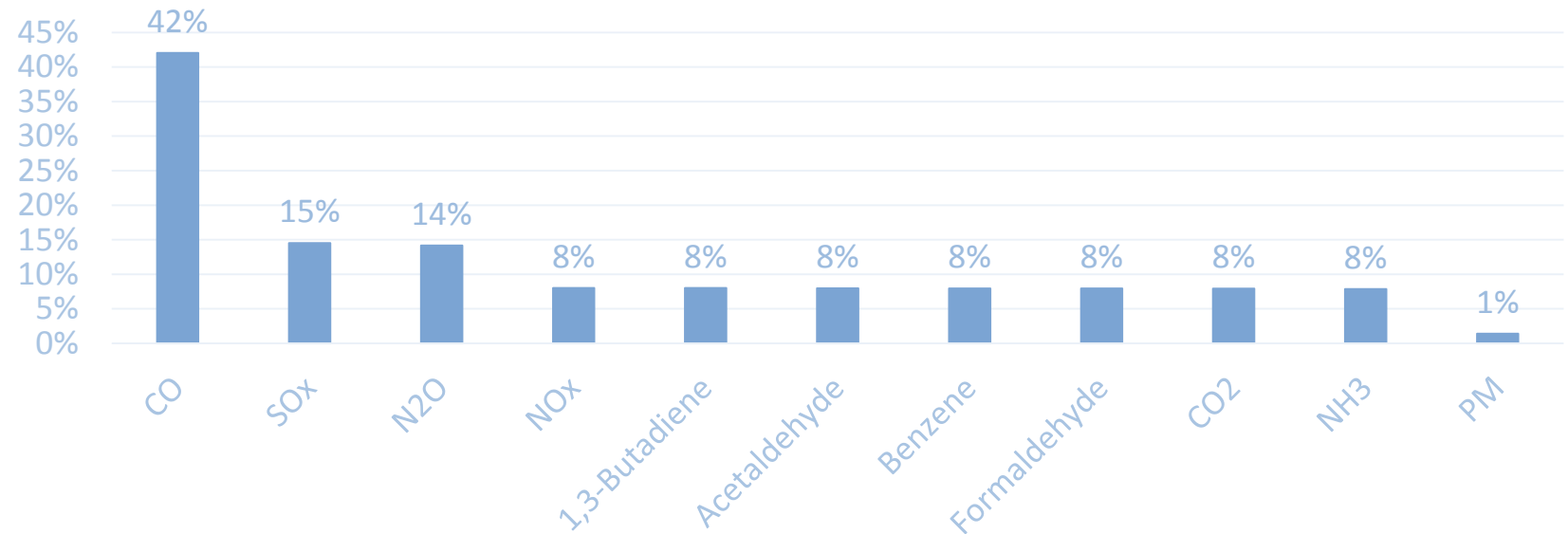
No. road accidents: **0**

No. report of thefts: **0**

There were zero events related to accidents or thefts in the areas evaluated

Environment

Average savings (%) on emissions of air pollutants



Source SEPRO-UN

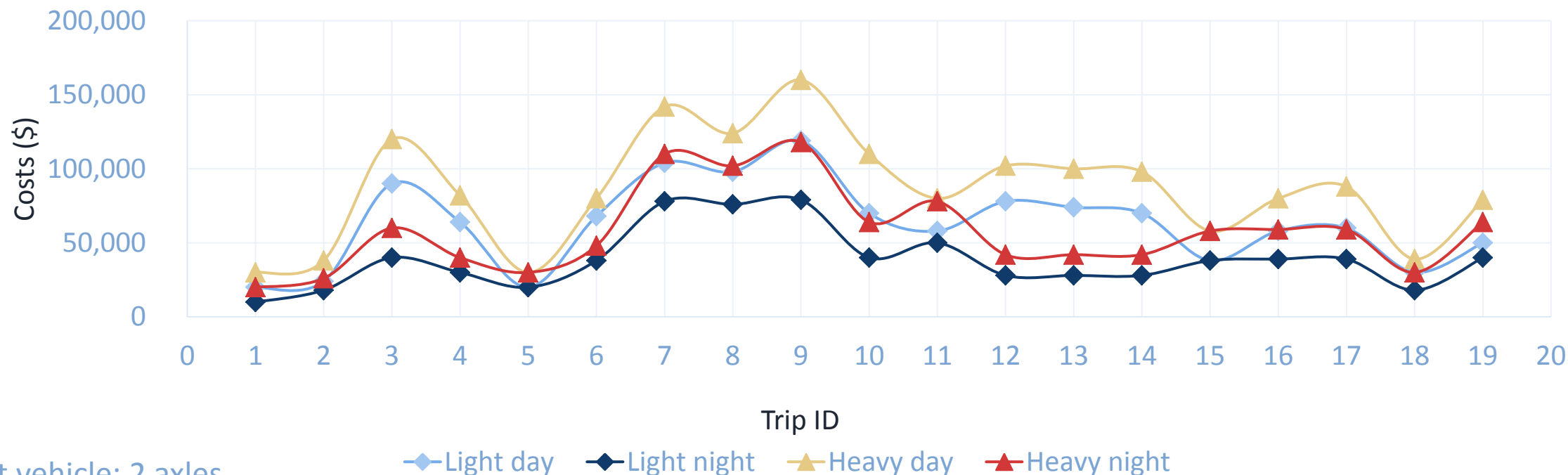
Off-Hour delivery pilot in Bogota-Results



Logistics performance

46% more merchandise
unloaded.

Travel costs



Light vehicle: 2 axles
Heavy vehicle: > 2 axles

Source: SEPRO - UN

Off-Hour delivery pilot in Bogota-Results

Perception



Source: Pixabay – carlovenson



Congestion

The companies and drivers perceived decongestion of the roads, which facilitated the fastest deliveries within the city.

Freight Loading and Unloading Zones

Freight Loading and Unloading Zones in Bogota

ZONE	Location	Improvement of average speed(%)	Average loading and unloading time (min)
ZONA G	KR 5, entre CL 69 y CL 71	12	14
PARQUE 93	CL 93A, entre CL 93 y 93B	6	14
WORLD TRADE CENTER	KR 9, entre CL 97 y CL 99	Unaffected	18
BARRIOS UNIDOS	CL 68, entre KR 20 y KR 22	8	34
SANTA LUCIA	CL 46 S, entre CL 47 y Av. Caracas	73	35
LOS MÁRTIRES	AK 18, entre CL 11 y CL 13	15	25
GALERÍAS	KR 27, entre CL 52 Y CL 54	5	24
BARRIOS UNIDOS	CL 66, entre KR 16 y AV. CARACAS	11	25
PUENTE ARANDA	KR 60 y KR 63, entre CL 5B Y CL 9	25	37
LOS MÁRTIRES	AK 18, entre AC 13 y CL 11	15	25
LISBOA	KR 151 Bis y KR 152 con calle 132 D	Unaffected	30
CALLE 71	CL 71, entre AK 9 y AK 11	Unaffected	25



Source: Secretariat Mobility of Bogota

Freight Loading and Unloading Zones in Bogota



Zona G

CALLE 69A



CALLE 71



Parque la 93



Galerías

KR 27 - CL 52



KR 27 - CL 54



Alcaldía de Bogotá

Lessons Learned



- ❖ **Confidence**
- ❖ **Documented pilot projects**
- ❖ **How to do it (what to do)**
- ❖ **Institucional structure**
- ❖ **Be realistic**
- ❖ **Public policy based on data**
- ❖ **Integrate freight sector on urban planning**

iThank you!

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