



INTERNATIONAL TRANSPORT FORUM

FORTALEZA CRASH INFORMATION SYSTEM: SIAT

APRIL, 2019



**Prefeitura de
Fortaleza**

Secretaria Municipal de Conservação
e Serviços Públicos



**Bloomberg
Philanthropies**

INITIATIVE FOR GLOBAL ROAD SAFETY

FORTALEZA



POPULATION
2.6 MILLION



ROAD NETWORK
~ 4,000 KM



REGISTERED VEHICLES
1.1 MILLION



MOTORCYCLES
300,000





226

ROAD DEATHS IN
2018

8,6

DEATHS/ 100 K INHAB.
2018

60

INJURED VICTIMS/
DEATH

FORTALEZA CRASH INFORMATION

SYSTEM CHRONOLOGY



**CRASH INFORMATION
SYSTEM DEVELOPED**

2000

**SYSTEM
LAUNCHED**

01 INTEGRATION OF MULTIPLE SOURCES

02 RESOURCES AND MANAGEMENT

03 KNOWLEDGE PRODUCTION

FORTALEZA CRASH INFORMATION

SYSTEM CHRONOLOGY

INSTITUTIONAL RELATIONS DISCONTINUED

LAST COMPLETE DATASET: 2011

AMC ONLY REMAINING SOURCE

LABOR-INTENSIVE & COMPLEX TO MAINTAIN



2011-2014 SYSTEM
DISCONTINUED

2000

SYSTEM
LAUNCHED

2011

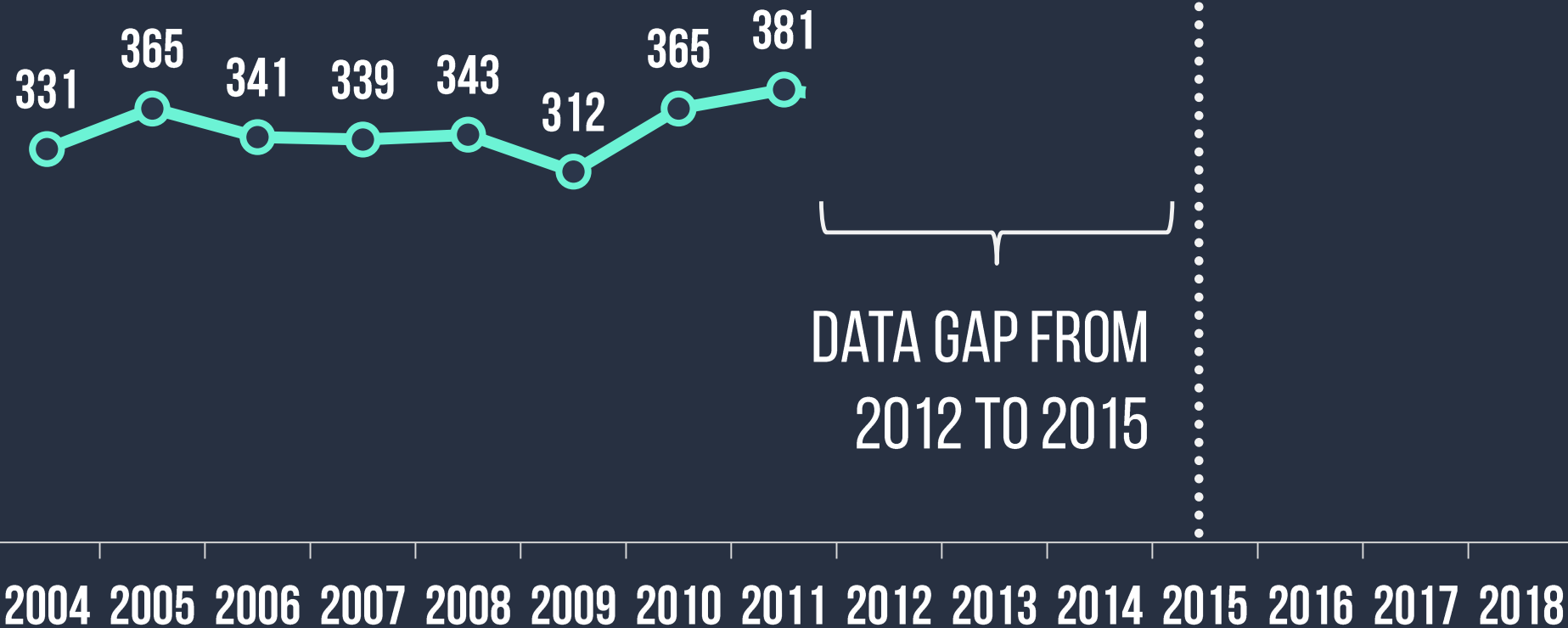
SYSTEM
DISCONTINUED

FORTALEZA CRASH INFORMATION

SYSTEM CHRONOLOGY



2011-2014 SYSTEM
DISCONTINUED



FORTALEZA CRASH INFORMATION

SYSTEM CHRONOLOGY

CHALLENGES TO RECOVER SYSTEM

01 INSTITUTIONAL COLLABORATION

02 FOCUS CHANGE: DEATHS & SERIOUS INJURIES

03 STREAMLINING SOURCES

04 STRATEGIC USE OF DATA

SIAT RECOVERY 2015-2016



2000

SYSTEM
LAUNCHED

2011

SYSTEM
DISCONTINUED

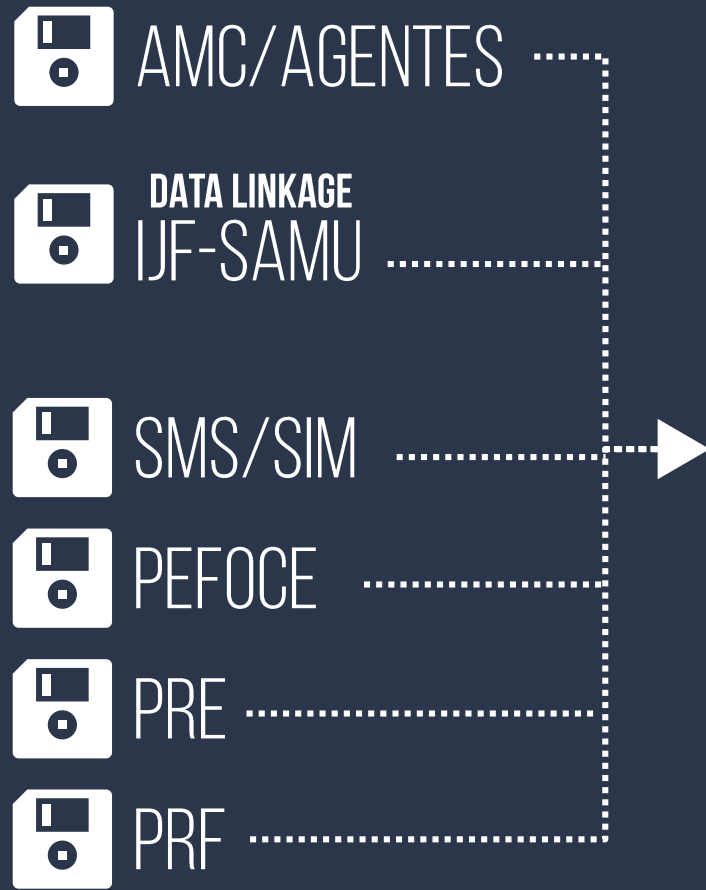
2015

SYSTEM
RECOVERY

FORTALEZA CRASH INFORMATION

SYSTEM CHRONOLOGY

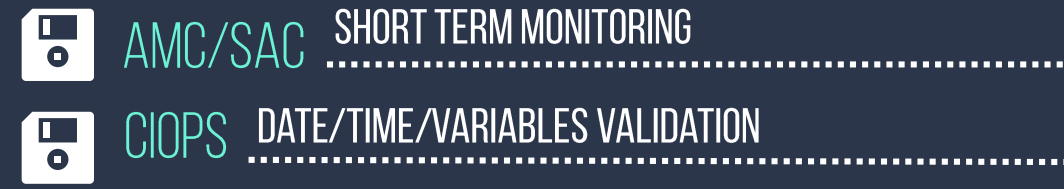
INSTITUTIONAL
CONNECTIONS
REESTABLISHED



7 SOURCES: MONTHLY
UPDATES TO AMC

OUTCOME DATA:
CRASH DISTRIBUTION
CHARACTERIZATION

WHERE, WHEN, WHO, HOW



FORTALEZA CRASH INFORMATION

SYSTEM CHRONOLOGY

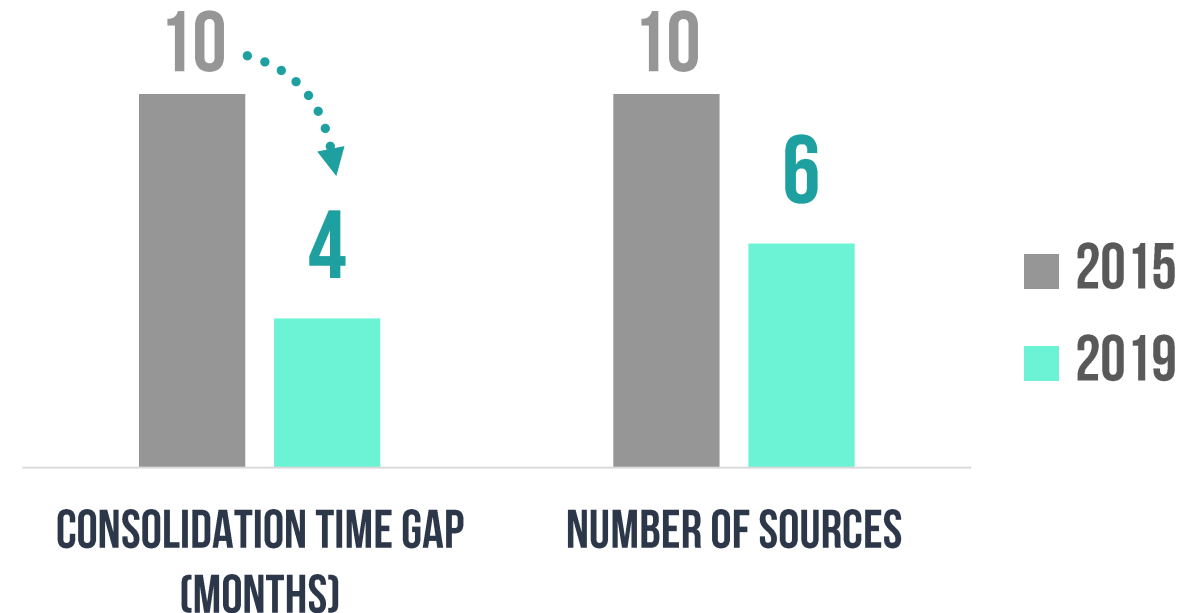
REDUCTION OF
TIME NEEDED
FOR DATASET
CONSOLIDATION

REVIEW OF EXISTING
DATA SOURCES AND
VARIABLES

NEW GROUP OF
SOURCES AND
METHOD DEFINED

IMPLEMENTATION
AND MONITORING

-60%
TIME NEEDED TO ENTER
AND CONSOLIDATE
INJURY AND FATAL
DATASETS

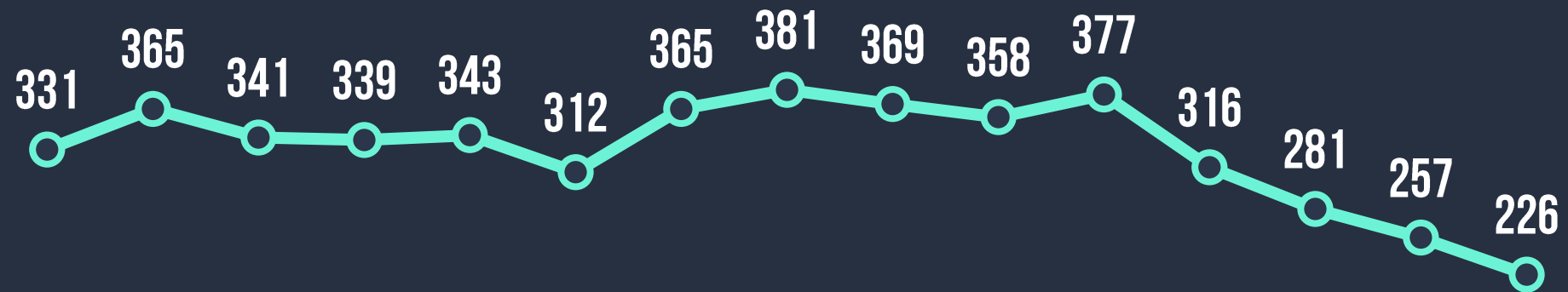


FORTALEZA CRASH INFORMATION

SYSTEM CHRONOLOGY



SIAT RECOVERY 2015-2016



DATA GAP RECOVERED AND
SYSTEM MAINTENANCE

2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

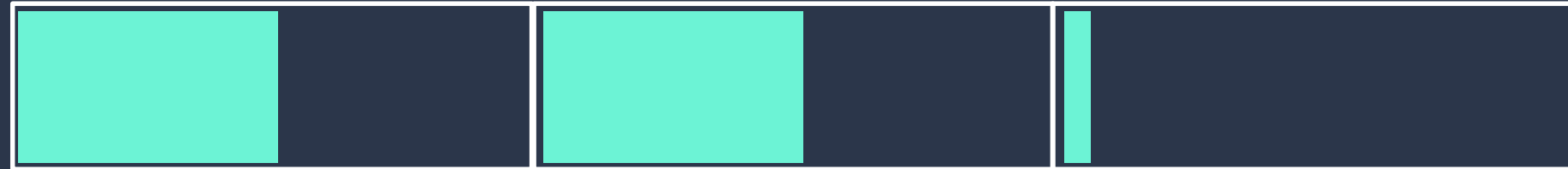
FORTALEZA CRASH INFORMATION

SYSTEM CHRONOLOGY

ENVIROMENT

VEHICLES

PEOPLE



BETTER
COMPREHENSION
OF PROBLEM

1 – TRAFFIC ANGENCY AND POLICES (AMC/PRE/PRF/CIOPS/PM)

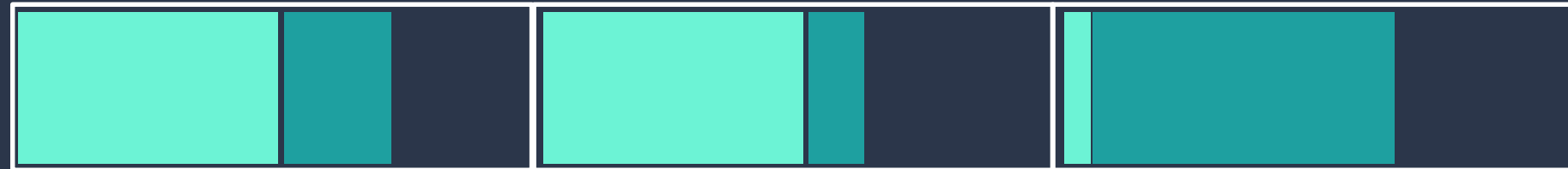
FORTALEZA CRASH INFORMATION

SYSTEM CHRONOLOGY

ENVIROMENT

VEHICLES

PEOPLE



BETTER
COMPREHENSION
OF PROBLEM

1 – TRAFFIC AGENCY AND POLICES (AMC/PRE/PRF/CIOPS/PM)

2 – HEALTH SECTOR AND FORENSICS (SAMU/IJF/PEFOCE)

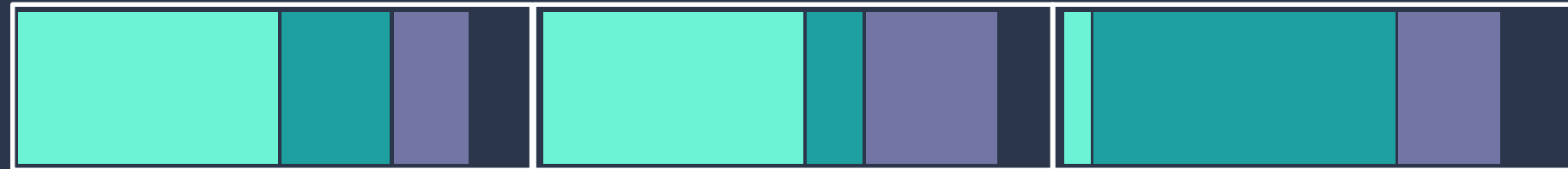
FORTALEZA CRASH INFORMATION

SYSTEM CHRONOLOGY

ENVIROMENT

VEHICLES

PEOPLE



BETTER
COMPREHENSION
OF PROBLEM

1 – TRAFFIC AGENCY AND POLICES (AMC/PRE/PRF/CIOPS/PM)

2 – HEALTH SECTOR AND FORENSICS (SAMU/IJF/PEFOCE)

3 – ADDITIONAL STUDIES (COMITÊ DE REVISÃO/IJF/....)

FORTALEZA CRASH INFORMATION SYSTEM CHRONOLOGY

BETTER
COMPREHENSION
OF PROBLEM

GEOCODING SUCCESS RATE

90.2% (INURIES)

99.6% (FATAL)



FORTALEZA CRASH INFORMATION

SYSTEM CHRONOLOGY

**BETTER
COMPREHENSION
OF PROBLEM**



AMC/AGENTS



AMC/ENG.



SAMU



IJF



PEFOCE



SMS

DEATH REVIEW COMMITTEE



INVESTIGATION OF RISK
FACTOR RELATED TO
DEATHS

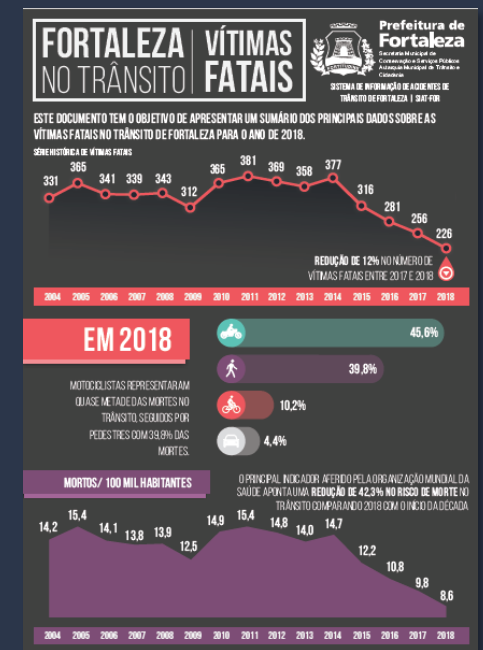
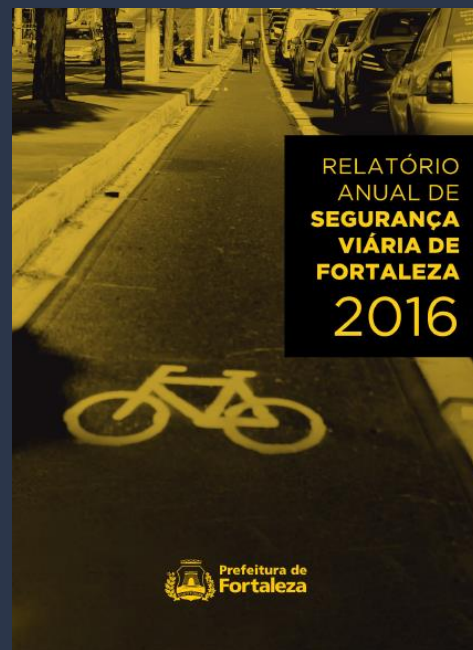
IDENTIFY RISK
FACTORS AND ORIENT
ACTIONS ON SHORT,
MID AND LONG TERM
FOR ALL
STAKEHOLDERS
INVOLVED

FORTALEZA CRASH INFORMATION

SYSTEM CHRONOLOGY

STRATEGIC USE OF DATA

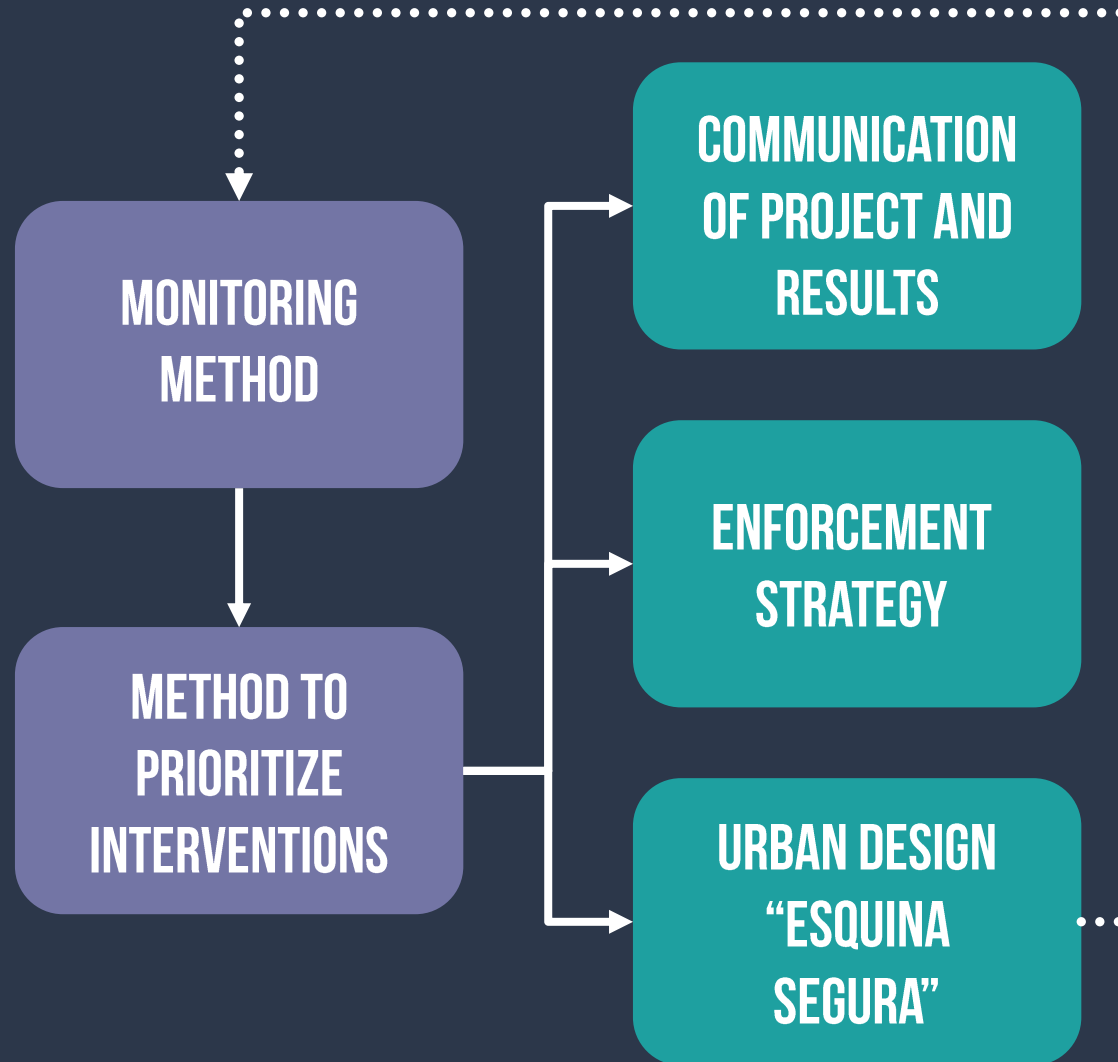
FORTALEZA COMPILED AND SHARED PERIODICALLY CRASH DATA INFORMATION TO THE **GENERAL PUBLIC**, INCITING LOCAL MEDIA TO REVERBERATE THE THEME



FORTALEZA CRASH INFORMATION

SYSTEM CHRONOLOGY

STRATEGIC USE OF DATA



"ESQUINA SEGURA" MAIN RESULTS

50%
REDUCTION
ON CRASHES
WITH VICTIMS

FORTALEZA CRASH INFORMATION

SYSTEM CHRONOLOGY

SIAT/DRIVER MODERNIZATION

PARTNERSHIP: CITY + UNIFOR + WORLD BANK

01 REDUCE THE TIME NEEDED FOR DATA ENTRY

02 DASHBOARD WITH DATA VISUALIZATIONS

03 MULTIPLE ACCESS POINTS WITH A WEB-BASED SYSTEM



2000

2011

2015

2019

SYSTEM
LAUNCHED

SYSTEM
DISCONTINUED

SYSTEM
RECOVERY

SYSTEM
UPGRADE





**Prefeitura de
Fortaleza**

OBRIGADO.
GRACIAS.