

The DANUBE REGION TRANSPORT DAY 2020

Sustainable Mobility and the Danube macro-region



STRATEGIC APPROACH IN URBAN ROAD SAFETY MANAGEMENT – BELGRADE CASE STUDY –

15th December 2020

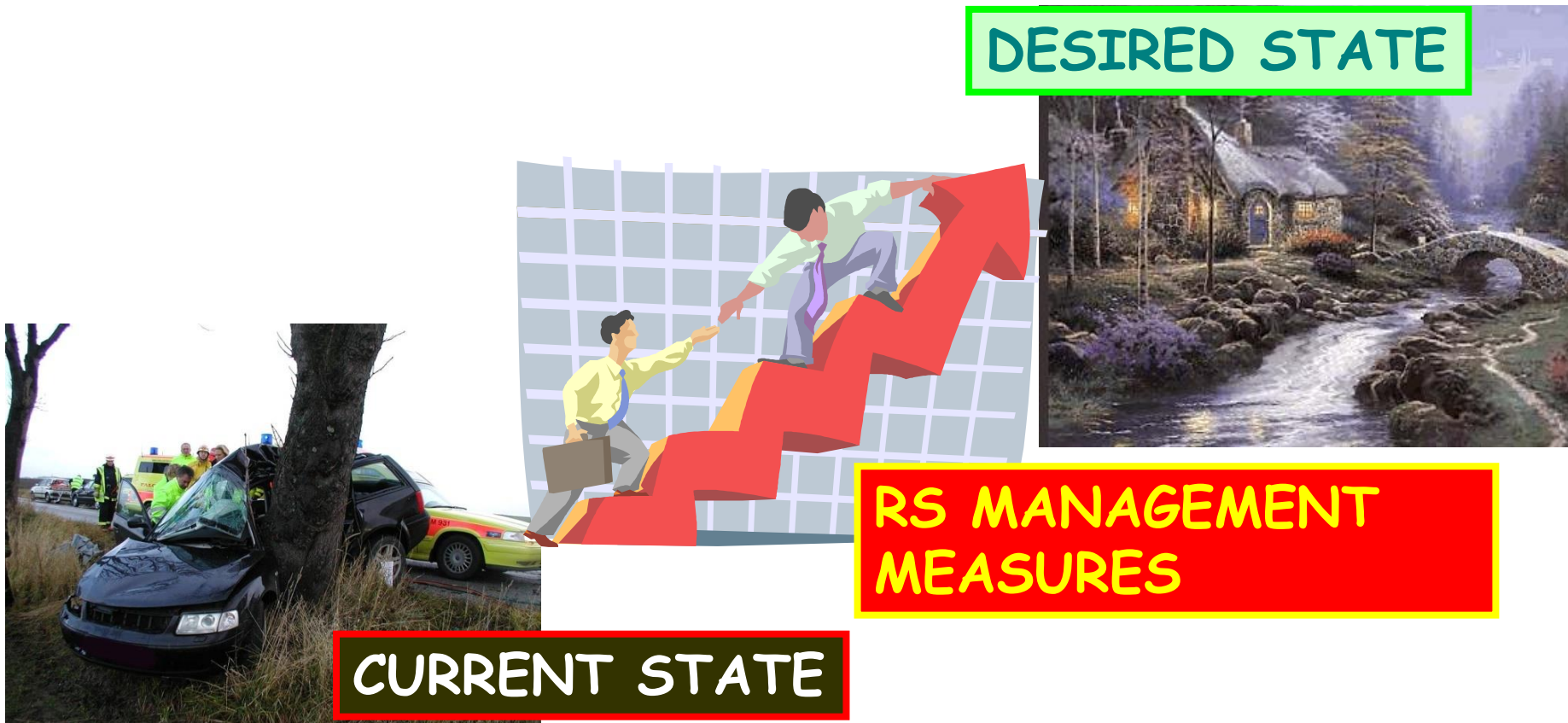
Prof. **Krsto Lipovac**, PhD
Faculty of transport and traffic engineering
Belgrade university

OVERVIEW OF THE PRESENTATION

1. What is URSM (urban road safety management)?
2. Preconditions for successful URSM
3. Monitoring current state of URS: traditional and modern approach
4. Defining desired state of URS: traditional and modern approach (2)
5. Three different types of the cities
6. Road safety system in Belgrade
7. RSP Indicators in Belgrade
8. RS targets in Belgrade (2)
9. Progress monitoring in Belgrade
10. Modern approach of strategic URSM / conclusions

WHAT IS URSM (URBAN ROAD SAFETY MANAGEMENT)?

URSM is the process of monitoring **current state** of URS, defining **desired state** and implementing **measures** aimed to move current state to the target state of URS.



PRECONDITIONS FOR SUCCESSFUL URBAN ROAD SAFETY MANAGEMENT

1

TO UNDERSTAND **CURRENT STATE OF URS**

2

TO DEFINE **DESIRED STATE OF URS**

3

TO BE ABLE TO **PLAN, DESIGN AND IMPLEMENT
COUNTRAMEASURES**

TO UNDERSTAND CURRENT STATE OF URS

TRADITIONAL APPROACH

- **Only FINAL OUTCOMES:** ROAD CRASHES AND CONSEQUENCES

- **MODERN APPROACH**

- **RS SYSTEM**

- EXISTANCE, CAPACITY AND INTEGRITY
- OF THE INSTITUTIONS AND INDIVIDUALS

- RS **CULTURE** (KNOWLEDGE, ATTITUDES, AWARENES)

- RS PERFORMANCE **INDICATORS** (BEHAVIOR)

- IT IS NECESSARY TO HAVE REGULAR **SURVEY** OF THE **SYSTEM, ATTITUDES, RSP INDICATORS, ROAD CRASHES AND CONSEQUENCES**

TO DEFINE DESIRED STATE OF URS

TRADITIONAL APPROACH

- **ONLY FINAL OUTCOMES:** ROAD CRASHES AND CONSEQUENCES

MODERN APPROACH

- **RS SISTEM**
 - EXISTANCE, CAPACITY AND INTEGRITY
 - OF THE INSTITUTIONS AND INDIVIDUALS
- RS **CULTURE** (BELIEFS, KNOWLADGE, ATTITUDES, AWAIRNES)
- RS PERFORMANCE **INDICATORS** (BEHAVIOR)

TO **QUANTIFY** DESIRED STATE

TO DEFINE DESIRED STATE OF URS

TRADITIONAL APPROACH

- ONLY FINAL TARGETS (LAST YEAR)

MODERN APPROACH

- **FINAL TARGETS**
 - RS SYSTEM, ATTITUDES, RSP INDICATORS, ROAD CRASHES
- +
- **INTERMEDIATE TARGETS / FROM YEAR TO YEAR**

TO **QUANTIFY** FINAL AND INTERMEDIATE TARGETS!!!

THREE DIFFERENT TYPES OF THE CITIES IN TERMS OF URSM

1. CITIES WHICH ESTABLISH RS SYSTEM FOR **SUCCESSFULL RSM** (Oslo)
2. CITIES WHICH **TRY TO MANAGE ROAD SAFETY, BUT...** (Belgrade)
3. CITIES WHICH **DON'T TRY TO MANAGE ROAD SAFETY** (Many cities all over the world)

URS HAS TO BE BASED ON THE **EVIDENCE** AND ON THE
SCIENCE!

ROAD SAFETY SYSTEM IN BELGRADE



Road safety budget:
2-3 milion euros

Institutions

- Road Safety Council
- Secretariat for Transport
- Traffic police
- Schools,
- Universities,
- 17 municipalities....

RS Documents

- Road safety strategy
- Road safety action plan
- Annual Road safety program...

REGULAR SURVEY OF RSP INDICATORS AT NATIONAL (ANUALLY FROM 2014.) AND LOCAL LEVEL

RSP indicators surveys
(2015, 2018, 2020)



% of seat belt usage
**for all vehicle categories*

% use of daytime running lights
**for all vehicle categories*

% use of child restraint systems



% use of safety helmets
**with drivers and passengers*



Indicators related to
speed and alcohol



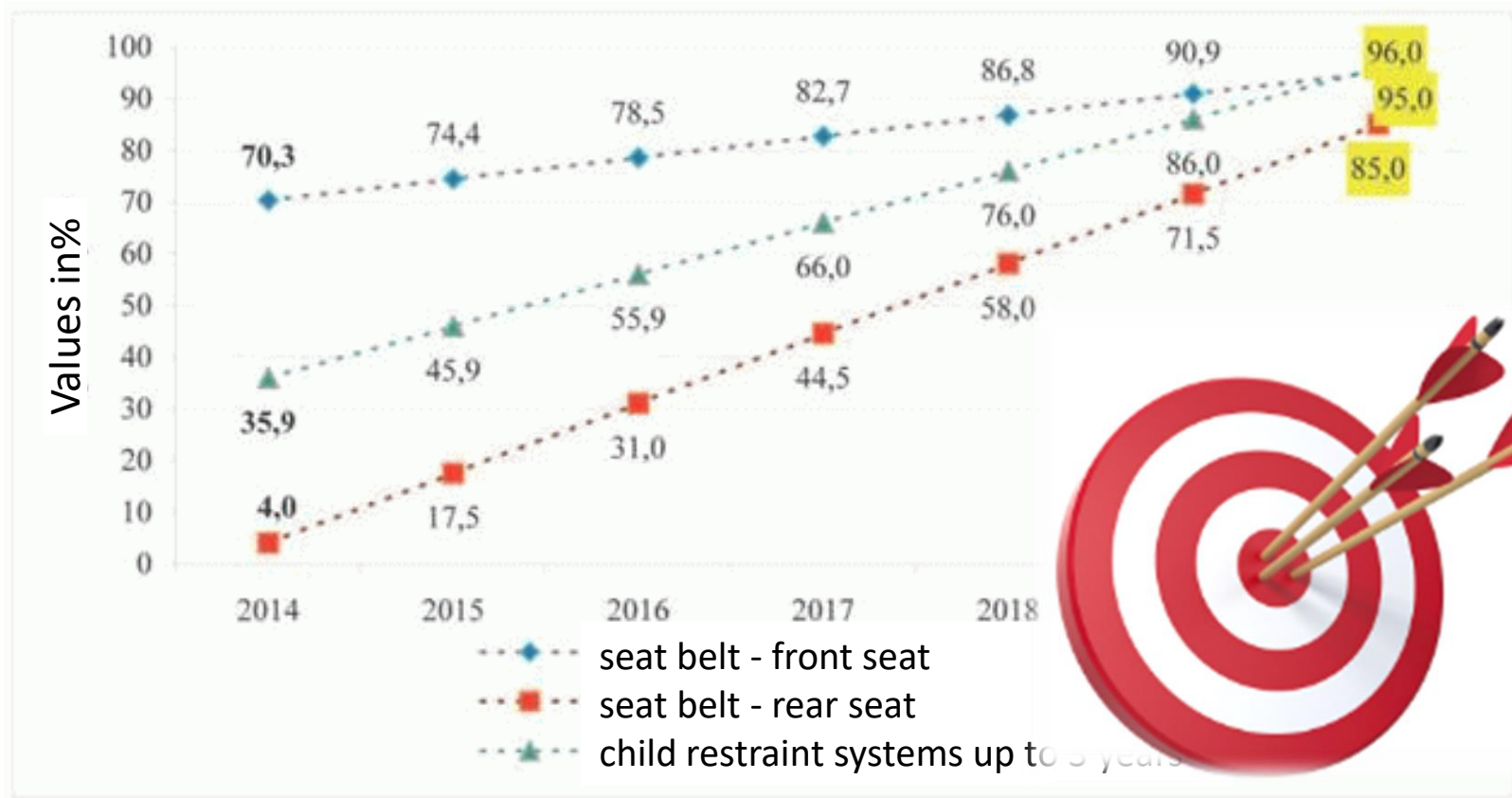
Pedestrian
behavior

RS TARGETS IN BELGRADE

- To improve RS **system**
 - Improve capacity (**No** of new employees ...)
 - Improve integrity (**No** of trainings ...)
- To improve **attitudes** about RS and risk in traffic (**Numbers**)
- To improve RS **indicators** (**Numbers** ...)
- To decrease No of **deaths** and **serious injuries** (**Numbers**)

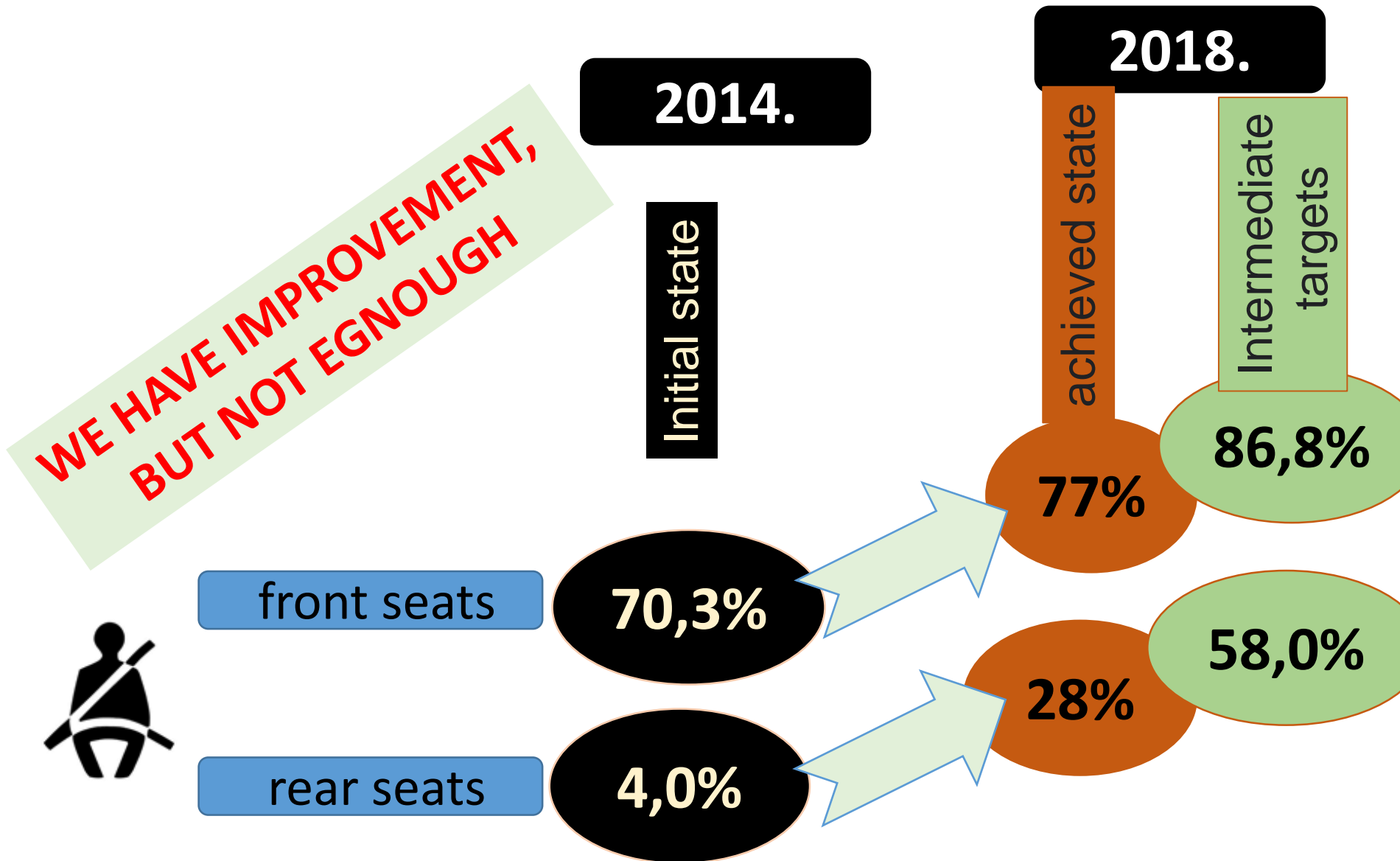
- Final targets (2020)
- Intermediate targets (2016, 2017, 2018, 2019)

RS TARGETS (RSP INDICATORS)



The Road Safety Strategy also defines the intermedium and final goals related to the most important indicators

EVERY YEAR PROGRESS MONITORING AND EVALUATION COUNTERMEASURES



MODERN APPROACH OF STRATEGIC URSM - CONCLUSIONS -

Road safety based on science!

RS based on data

Targets in terms of:

- **URS system,**
- **awareness and attitudes,**
- **RSP indicators**

Targets in terms of

final outcomes:

- **deaths and**
- **serious injuries**

Final and intermediate targets

Quantified targets!

Every year evaluation countermeasures!



Prof. Krsto Lipovac, PhD
k.lipovac@sf.bg.ac.rs

