ENHANCEMENT OF TRANSPORT BUSINESS EFFICIENCY IN PASSENGER TRANSPORTATION

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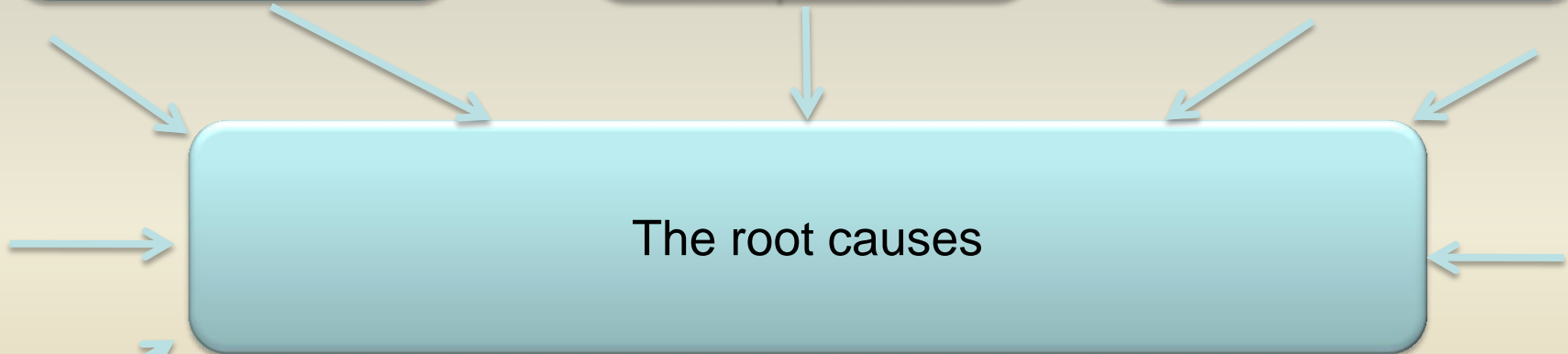«TRANSTEKHNIKA»
Minsk, Republic of Belarus

Geneva, 5 September 2016

Problem:
low payback of passenger transportation

Problem:
decrease in volumes of passenger transportation

Problem:
the aging of the vehicle fleet

The root causes

Problem

Problem

Problem

INTERESTS OF THE STATE

INTERESTS OF THE CARRIER

POPULATION INTERESTS

Task

Barrier

Barrier

The process of overcoming as target

The process of overcoming as target

accounting,
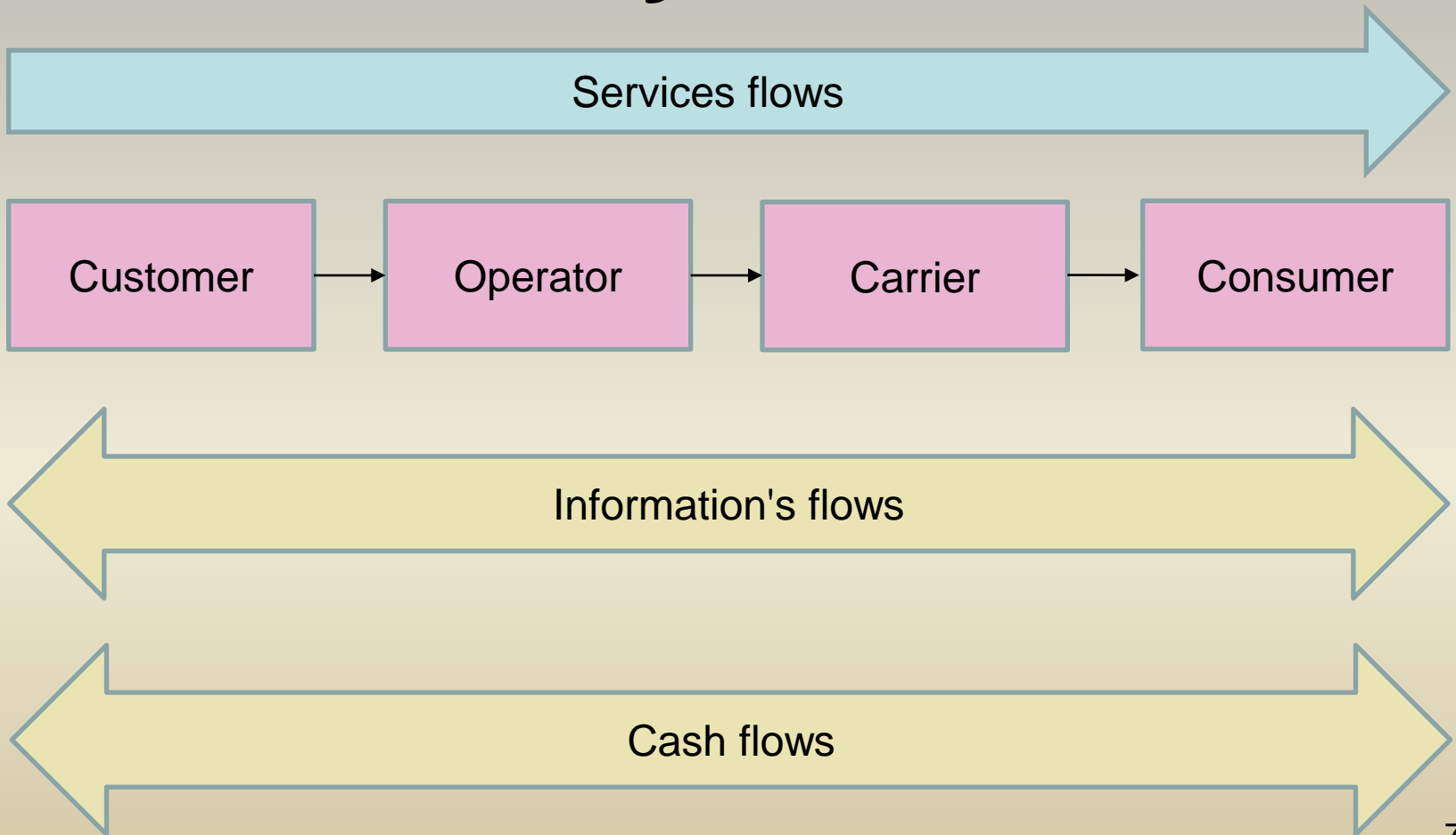local methods of
management

WORK
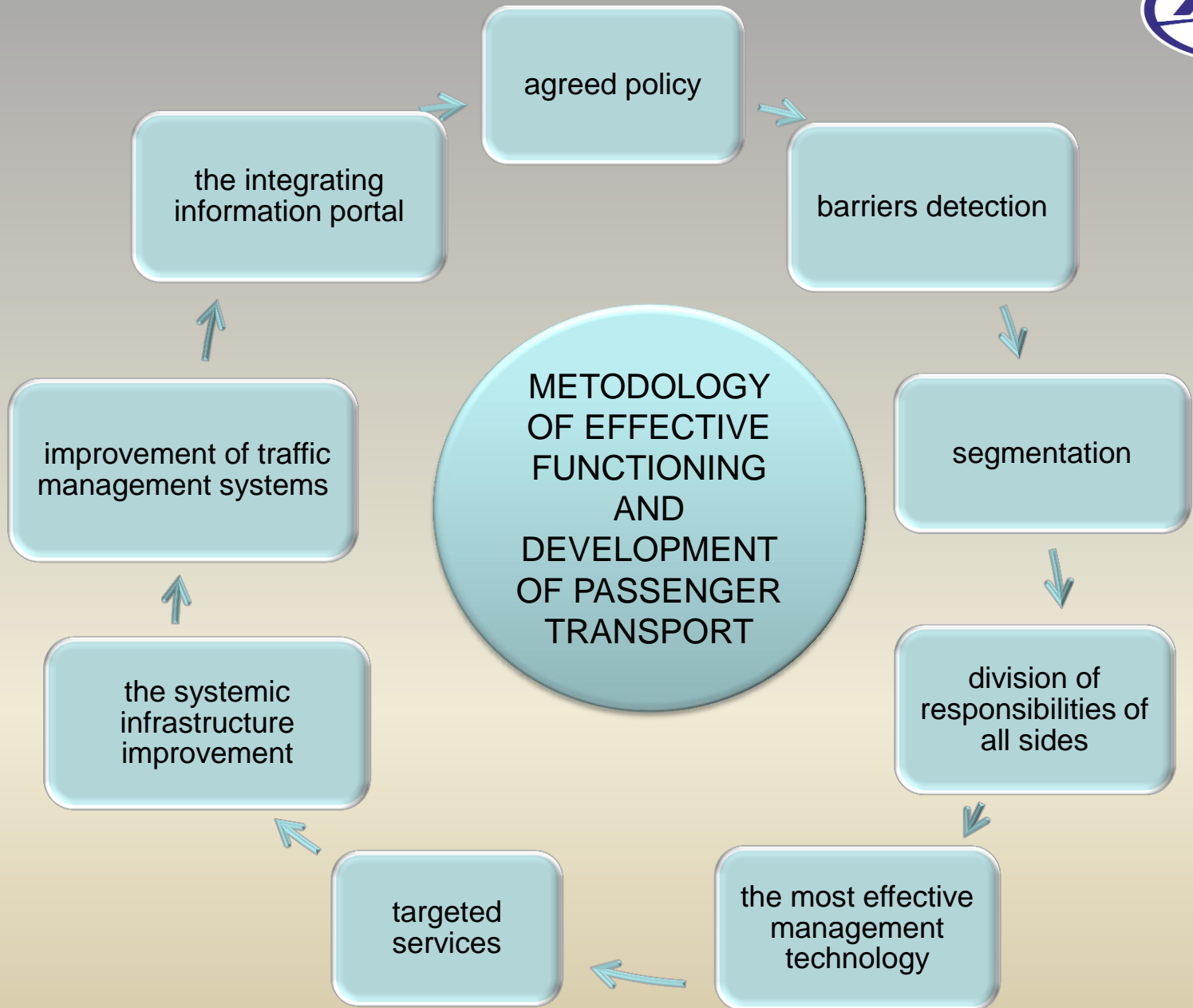
EFFICIENT MANAGEMENT TECHNOLOGIES

methods of
management
based on **LEAN
KAIZEN TOC**

RESULT

Passenger transport as a system

Services flows →

Customer	→	Operator	→	Carrier	→	Consumer

← Information's flows →

← Cash flows →

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METODOLOGY OF EFFECTIVE FUNCTIONING AND DEVELOPMENT OF PASSENGER TRANSPORT

- agreed policy
- barriers detection
- segmentation
- division of responsibilities of all sides
- the most effective management technology
- targeted services
- the systemic infrastructure improvement
- improvement of traffic management systems
- the integrating information portal

Algorithm of problems solving

Segmentation of system subjects	Business process research

Administrative links MIN

Economic links MAx

Business process reengineering events

Classification scheme development	Optimal transport activity measuring instrument

The updated classification	Cost calculation methodology development
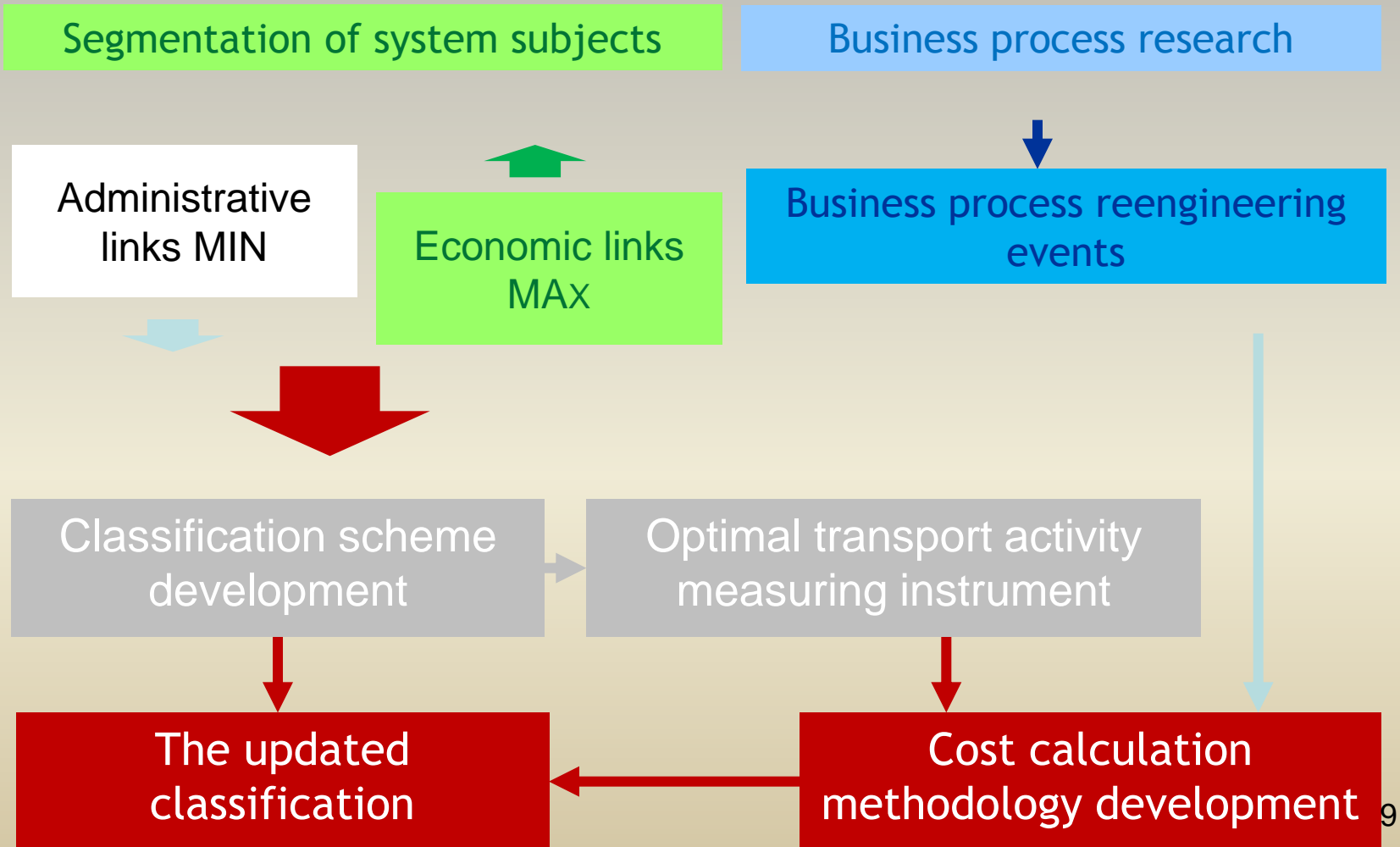
Targets of interest groups

Customer	Carrier	Operator	Consumer

PRICE – COSTS

RELIABILITY – SAFETY

QUALITY – ECOLOGY

QUALITY – ECOLOGY

STANDARDS, BALANCE, LOGISTICS

PROFIT MARKET SHARE

LACK OF COMPLAINTS

TRAVEL AND WAITING TIME

Consumer Preferences

Republic of Belarus	CIS countries	EU countries

COMFORT - CONVENIENCE

TRAVELING SPEED — **TRAVELING SPEED**

WAITING TIME– FREQUENCY OF TRIPS

CULTURE — **INFRASTRUCTURE MODERNIZATION**

QUALITY – ECOLOGY

MODERN FORMS OF PAYMENT

INTERIER CLEANLINESS

TRANSPORT RENOVATIONS

CHEAP RATES - PRIVILEGES

SERVICE QUALITY — **SERVICE QUALITY – ENVIRONMENT**

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Process view of
the passenger transportation

Return the
vehicle from
the lines

Vehicle Launch

Vehicle traffic on the line

| 1 | 2 | 3 | ... | 9 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | ... | 25 | 9 |

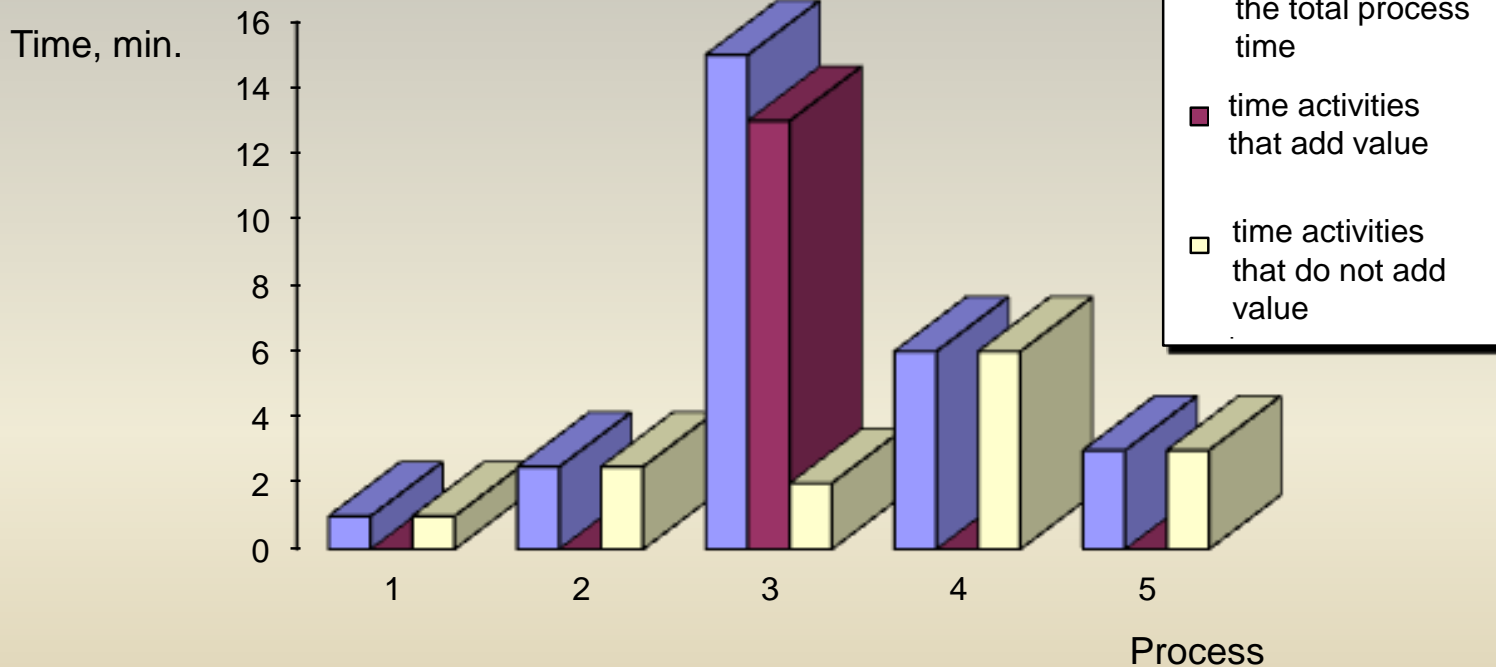| 1 | 2 | ... | 5 |
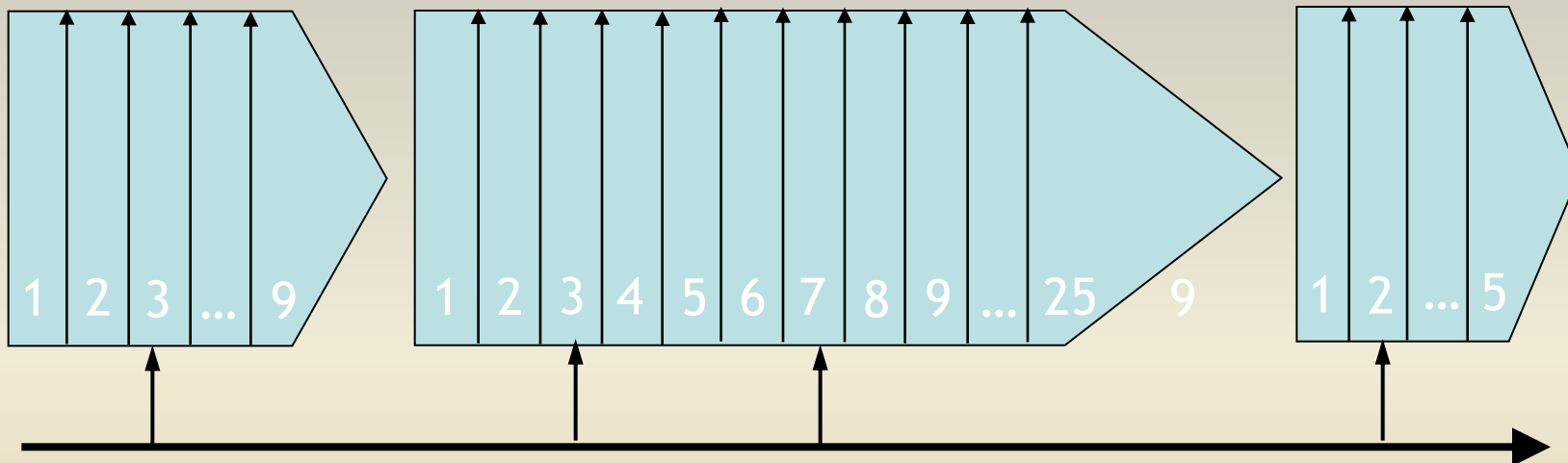
External factors influencing the
passengers transportation process:

- transport infrastructure, uniformity of movement, automatization level;
- Vehicle, their technical condition.

Return the vehicle from the lines

Time, min.

the total process time

time activities that add value

time activities that do not add value

Process

Application of classification

The classifying parameters	Estimation of the dominant features					Parameter estimation
	Feature 1	Feature 2	Feature 3	Feature 4	Feature 5	
Parameter 1	7	9	7	5	7	7,0
Parameter 2	5	8	6	9	9	7,4
Parameter 3	8	6	8	8	8	7,6
Parameter 4	7	9	3	9	7	7,0
Parameter 5	10	9	10	10	9	9,6
Parameter 6	8	10	7	10	5	8,0
Parameter 7	9	5	5	10	6	7,0
Parameter 8	9	6	4	7	7	6,6

The line of colors	Points									
	1	2	3	4	5	6	7	8	9	10

The effectiveness of the regional passenger transport system
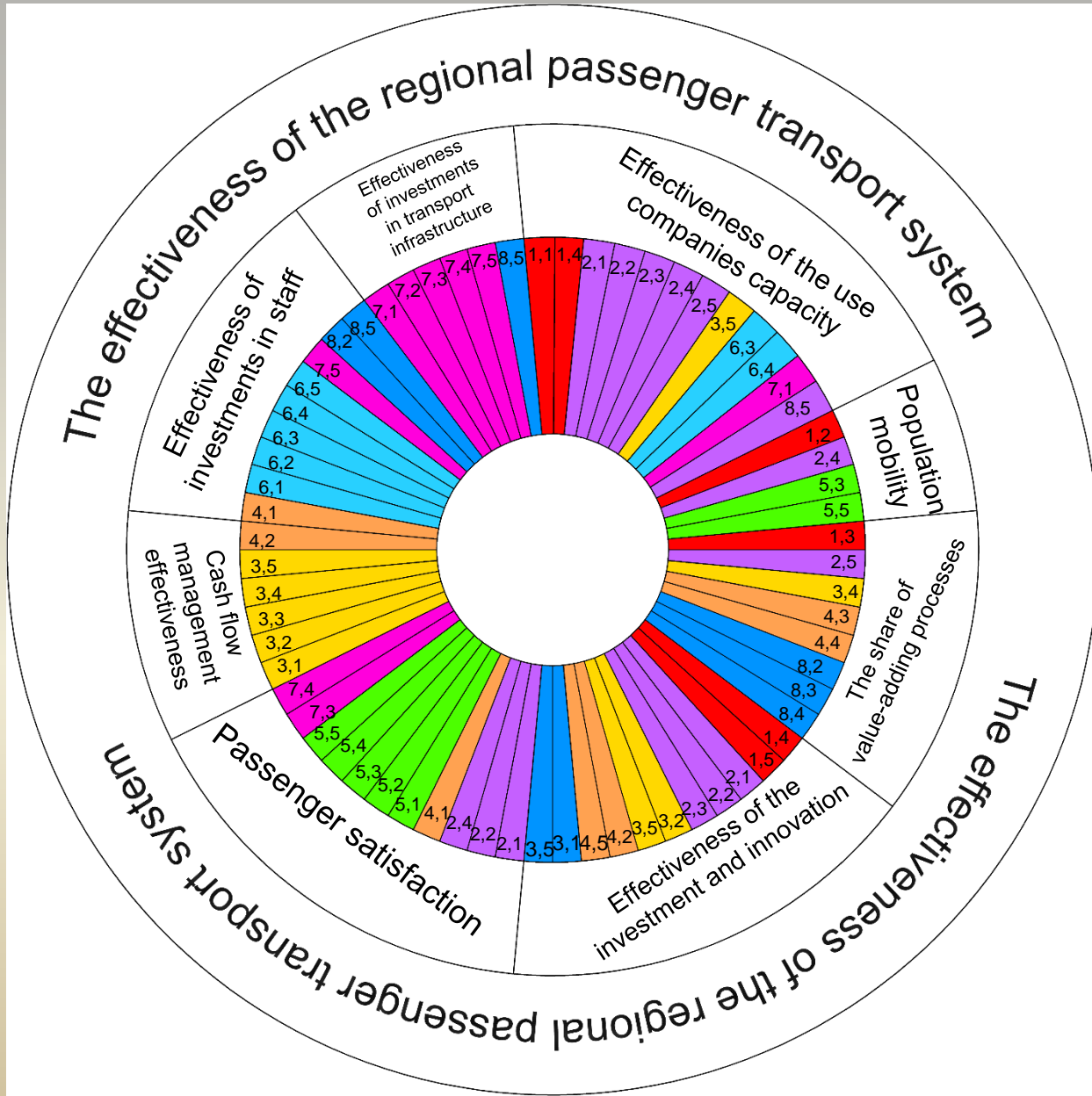
Areas for further researches

- Development of perspective directions of related services in the field of passenger transport to increase population mobility and passenger satisfaction

- Development of passenger transport services consumers segmentation systems to enhance the attractiveness of public transport and to optimize the transport work measurement parameters

- Development of normative legal acts. Rules of subjects interaction development

- Research the causes of the loss in traffic and the development of proposals to reduce their impact on the effectiveness of passenger transport

- Development of personnel management system that provides a constant growth of efficiency of its operations

- Development of financial flows management techniques that enhance the efficiency of passenger transportation on the basis of a process-oriented cost accounting system and revenue.

Thank you for your kind attention!

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