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AfroTrans

Road Transportation Systems Engineering Development in Sub-Saharan Africa - Modern EU Master Programme & Capacity Building

Meeting 2024.02.19

GDAŃSK UNIVERSITY OF TECHNOLOGY

ALPEN-ADRIA UNIVERSITÄT
KLAGENFURT | WIEN GRAZ

Bauhaus-Universität Weimar

Co-funded by the
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of the European Union

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Agenda

12:00	Intro
12:15	WP1. Project management and coordination
12:45	WP2. Curriculum and knowledge base development
13:30	WP3. Theoretical and practical teaching materials development to transport in Cameroon and the Democratic Republic of Congo
14:00	Online meeting with Prof. Kyamakya Kyandoghere
15:30	WP4. Summer schools and road transport research laboratories

WP1

Project management and coordination

Number	No. of tasks	Task outputs	Work packges and tasks	Leader	From	To	No. of months	Date from	Date to	Days	IV.2023	I.2024			II.2024			III.2024			IV.2024			IV.2025			I.2025			II.2025			III.2025			IV.2026			I.2026			II.2026			III.2026	
											1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
											Dec.2023	Jan.2024	Feb.2024	Mar.2024	Apr.2024	May.2024	Jun.2024	Jul.2024	Aug.2024	Sep.2024	Oct.2024	Nov.2024	Dec.2024	Jan.2025	Feb.2025	Mar.2025	Apr.2025	May.2025	Jun.2025	Jul.2025	Aug.2025	Sep.2025	Oct.2025	Nov.2025	Dec.2025	Jan.2026	Feb.2026	Mar.2026	Apr.2026	May.2026	Jun.2026	Jul.2026	Aug.2026	Sep.2026	Oct.2026	Nov.2026
WP1. Project management and coordination				**GUT**	**M1**	**#VALUE!**	**#VALUE!**	**01-12-23**	**#VALUE!**	**#VALUE!**																																				
1	1.1	T1.1	Project Management and Progress Reporting	GUT	M1	M36	36	01-12-23	30-11-26	1095	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2	1.2	T1.2	Financial and Contract Management	GUT	M1		#VALUE!	01-12-23	#VALUE!	#VALUE!	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3	1.3	T1.3	Management of Communication Activities	GUT	M1	M36	36	01-12-23	30-11-26	1095	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4	1.4	T1.4	Strategic and technical coordination	GUT	M1	M36	36	01-12-23	30-11-26	1095	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
5	1.5	T1.5	Quality Management (Quality Control of project management, Quality control of learning material development, Risk management)	GUT	M1	M36	36	01-12-23	30-11-26	1095	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
WP2. Curriculum and knowledge base development				**AAU**	**M2**	**M16**	**15**	**01-01-24**	**31-03-25**	**455**																																			
6	2.1	T2.1	Development of the cooperation strategy between the Partners and Associate Partners	AAU	M2	M4	3	01-01-24	31-03-24	90		x	x	x																																
7	2.2	T2.2	Deeply analysis of study programs at Democratic Republic of Congo and Cameroon universities - survey analysis in bachelor's degree with regards to The European Union	GUT	M3	M9	7	01-02-24	31-08-24	212			x	x	x	x	x	x	x																												
8	2.3	T2.3	Survey and evaluation of courses at Democratic Republic of Congo, Cameroon and EU universities in road transport system	BUW	M3	M9	7	01-02-24	31-08-24	212			x	x	x	x	x	x	x																												
9	2.4	T2.4	Teaching methodologies for new 12 Masters courses, designing requirements on master thesis with approval of new MSc program	GUT	M3	M16	14	01-02-24	31-03-25	424			x	x	x	x	x	x	x	x	x	x	x	x	x	x																				
10	2.5	T2.5	Building a knowledge base on stakeholders in the transportation system	AAU	M3	M9	7	01-02-24	31-08-24	212			x	x	x	x	x	x	x																												
11	2.6	T2.6	Building a base of data sources used in transport systems and processes	BUW	M3	M16	14	01-02-24	31-03-25	424			x	x	x	x	x	x	x	x	x	x	x	x	x	x																				
WP3. Theoretical and practical teaching materials development to transport in Cameroon and Democratic Republic of Congo				**BUW**	**M10**	**M26**	**17**	**01-09-24**	**31-01-26**	**517**																																			
12	3.1	T3.1	Fundamentals of transport systems and processes	BUW	M10	M26	17	01-09-24	31-01-26	517										x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x										
13	3.2	T3.2	Transport research and analysis	AAU	M10	M26	17	01-09-24	31-01-26	517										x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x										
14	3.3	T3.3	Sustainable transport planning	BUW	M10	M26	17	01-09-24	31-01-26	517										x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x										
15	3.4	T3.4	Road infrastructure safety management	GUT	M10	M26	17	01-09-24	31-01-26	517										x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x										
16	3.5	T3.5	Logistic management	GUT	M10	M26	17	01-09-24	31-01-26	517										x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x										
17	3.6	T3.6	Road construction and maintenance	GUT	M10	M26	17	01-09-24	31-01-26	517										x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x										
WP4. Summer schools and road transport research laboratories				**AAU**	**M6**	**M24**	**19**	**01-05-24**	**30-11-26**	**943**																																			
18	4.1	T4.1	Summer school in Poland	GUT	M12	M15	4	01-11-24	28-02-25	119												x	x	x	x																				
19	4.2	T4.2	Summer school in Austria	AAU	M21	M24	4	01-08-25	30-11-25	121																					x	x	x	x											
20	4.3	T4.3	Development of road transport research laboratories	BUW	M6	M20	15	01-05-24	31-07-25	456						x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x														
WP5. Deployment of new curriculum				**BUW**	**M25**	**M36**	**12**	**01-12-25**	**30-11-26**	**364**																																			
21	5.1	T5.1	Development of new curriculum in Cameron	UYI	M25	M36	12	01-12-25	30-11-26	364																										x	x	x	x	x	x	x	x	x	x	x	x
22	5.2	T5.2	Development of new curriculum in Democratic Republic of Congo	ULPGL	M25	M36	12	01-12-25	30-11-26	364																										x	x	x	x	x	x	x	x	x	x	x	x
WP6. Dissemination of project				**GUT**	**M5**	**M36**	**32**	**01-04-24**	**30-11-26**	**973**																																			
23	6.1	T6.1	Development of the e-learning platform	GUT	M17	M31	15	01-04-25	30-06-26	455																		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x					
24	6.2	T6.2	Development of the online didactic materials	BUW	M24	M36	13	01-11-25	30-11-26	394																									x	x	x	x	x	x	x	x	x	x	x	x	x
25	6.3	T6.3	Construction of the www AfroTrans website	GUT	M5	M9	5	01-04-24	31-08-24	152					x	x	x	x	x																												
26	6.4	T6.4	Distribution and promotion of information materials and publications	GUT	M10	M36	27	01-09-24	30-11-26	820										x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
27	6.5	T6.5	Final concluding EU-AFRICA conference	ULPGL	M35	M36	2	01-10-26	30-11-26	60																																				x	x

Important Dates

- Dates for all work packages and tasks

WP2

Curriculum and knowledge base development

leader AAU

Curriculum and knowledge base development - tasks

- *T2.1 Development of the cooperation strategy between the Partners and Associate Partners (AAU)*
- T2.2 Deeply analyses of study programs at Democratic Republic of Congo and Cameroon universities - survey analysis in bachelor's degree with regards to The European Union (GUT)
- T2.3 Survey and evaluation of courses at Democratic Republic of Congo, Cameroon and EU universities in road transport system (BUW)
- T2.4 Teaching methodologies for new 12 Masters courses, designing requirements on master thesis with approval of new MSc program (GUT)
- T2.5 Building a knowledge base on stakeholders in the transportation system (AAU)
- T2.6 Building a base of data sources used in transport systems and processes (BUW)

WP2 - objectives

Objectives implemented under WP2 include:

- *Establishing a framework for cooperation between Partners and Associated Partners*
- *Development of conclusions of an in-depth analysis of the study programmes of the universities of the Democratic Republic of Congo and Cameroon.*
- *Development of conclusions from surveys and evaluation of courses in the universities of the Democratic Republic of Congo, Cameroon, and the EU on the road transport system.*
- *Development of teaching methodologies for the new 12 master's degree courses with requirements for master's thesis.*
- *Approval of the curricula by the Ministry of Scientific Research and Technology (DR Congo) and the Ministry of Scientific Research and Innovation (Cameroon)*
- *Development of a knowledge base of transport system stakeholders (identification of graduate profile needs).*
- *Development of a database of data sources used in transport systems and processes (identification of opportunities for data use in the learning process).*

WP2 – T2.2 – leader GUT

- *Deeply analyses of study programs at Democratic Republic of Congo and Cameroon universities - survey analysis in bachelor's degree with regards to The European Union*

  - *Questions:*
    - *How many study programs at the Democratic Republic of Congo and Cameroon universities should we analyse?*
    - *Who can help us (in DRC or CM) to collect data?*
    - *What is the credit system in DRC, CM?*

WP2 – T2.3 – leader BUW

- *Development of conclusions from surveys and evaluation of courses in the universities of the Democratic Republic of Congo, Cameroon, and the EU on the road transport system*

  - *Questions:*
    - *How many European countries should we cover in that analysis?*
      - *Poland (GUT), Germany (BUW), Austria (AAU)*
      - *Italy, Sweden (Catania, Lund)?*
    - *What do we need to do it?*
      - *Syllabuses*
      - *Study programs*
      - *Bachelor or master level*

WP2 – T2.4 – leader GUT

- *Teaching methodologies for new 12 master courses, designing requirements on master thesis with approval of new MSc program*
    - *Fundamentals of transport systems and processes*
    - *Transport research and analysis*
    - *Sustainable transport planning*
    - *Road infrastructure safety management*
    - *Logistic management*
    - *Road construction and maintenance*

- *Questions*
    - *What do you think about adding another course*?

WP2 – T2.4 – leader GUT

No.	Types of classes	Hour	Short Name	Detailed description	Resource Type	Type of resource
Chapter 1 - Roadside - Impact of the environment on road safety						
1	Lecture	4	Elements of roadside, safety zone	Introducing what the roadside is and what elements it contains	PowerPoint-teacher Interview Interactive quiz PowerPoint-audio PowerPoint-audio Interactive quiz	Interactive quiz - 2*20, PowerPoint-teacher - 2*30, PowerPoint-audio - 2*30, Interview - 1*20
2	Lecture	5	Road safety analysis	Data base, statistics, Poland, Italy, Hungary, Slovakia, Austria	Interactive quiz PowerPoint-YouTube resources 1-6 PowerPoint-audio 1-2 Interactive quiz	Interactive quiz - 2*20, PowerPoint-teacher - 2*30, PowerPoint-audio - 2*30, Interview - 1*20
3	Lecture	3	Hazard identification and classification	Why does the roadside have such a negative effect on road safety?	PowerPoint-teacher Interview Interactive quiz PowerPoint audio Interactive quiz	Interactive quiz - 2*20, PowerPoint-teacher - 2*30, PowerPoint-audio - 2*30, Interview - 1*20
4	Lecture	2	Introducing barriers	Parameters of barrier, crash tests,	Interactive quiz PowerPoint-YouTube resources PowerPoint-audio PowerPoint-teacher Interview PowerPoint-audio Interactive quiz	Interactive quiz - 2*15, PowerPoint-teacher - 1*20, PowerPoint-audio - 1*20, Interview - 1*20
5	Lecture	4	Field crash tests	Introduction (norm 1317 about tests, polygons) Field crash test generally and in detail Numerical crash tests generally and in detail	PowerPoint-teacher Interactive quiz Interview PowerPoint-audio (numerical crashes) Interactive quiz	Interactive quiz - 2*20, PowerPoint-teacher - 1*20, PowerPoint-audio - 5*20, Interview - 1*20
6	Lecture	4	Numerical crash tests	Numerical simulation of crash tests	Interactive quiz PowerPoint-YouTube resources Interview PowerPoint-YouTube resources Interactive quiz PowerPoint -teacher PowerPoint-audio Research paper Interactive quiz	Interactive quiz - 2*20, PowerPoint-teacher - 1*20, PowerPoint-audio - 5*20, Interview - 1*20
7	Lecture	2	Roadside studies (general)	Guidelines different countries , norm 1317, Mash	PowerPoint-teacher Interactive quiz PowerPoint-audio Interactive quiz	Interactive quiz - 2*20, PowerPoint-teacher - 1*20, PowerPoint-audio - 1*30

WP2 – T2.4 – leader GUT

- *Approval of the curricula by the Ministry of Scientific Research and Technology (DR Congo) and the Ministry of Scientific Research and Innovation (Cameroon)*
  - *Questions*
    - *What are the rules for accreditation?*
    - *Do we need 90 or 120 ECTS (European Credit Transfer and Accumulation System)?*
    - *Usually a 'second cycle' (or master's) degree equates to 90 or 120 ECTS credits.*

  - https://op.europa.eu/en/publication-detail/-/publication/da7467e6-8450-11e5-b8b7-01aa75ed71a1

WP2 – T2.4 – leader GUT

- *Approval of the curricula by the Ministry of Scientific Research and Technology (DR Congo) and the Ministry of Scientific Research and Innovation (Cameroon)*

  - *Questions*
    - *What other courses we can add to curricula?*
      - *One course 30 h – 2 ECTS, 60 h – 4 ECTS*
      - *Master degree – 20 ECTS*
      - *12 courses – about 36 ECT*

    - *We need 12 other courses: math, statistics, ect.*

WP3

Theoretical and practical teaching materials development to transport in Cameroon and the Democratic Republic of Congo

leader BUW

Work assumptions

- What subjects are taught at the African universities involved in the project? Do you have already knowledge of it?
- What materials do you have ready (from your previous work/studies/projects), which can be used here?
- What forms of materials do you plan to prepare? (power point lectures/films/excercise or laboaratory excel sheets etc)?
- In what language do you create materials? (In English?)

Who should I contact specifically about the resulting materials?

WP3. Theoretical and practical teaching materials development to transport in Cameroon and Democratic Republic of Congo				BUW
12	3.1	T3.1	Fundamentals of transport systems and processes	BUW
13	3.2	T3.2	Transport research and analysis	AAU
14	3.3	T3.3	Sustainable transport planning	BUW
15	3.4	T3.4	Road infrastructure safety management	GUT
16	3.5	T3.5	Logistic management	GUT
17	3.6	T3.6	Road construction and maintenance	GUT

Milestones and deliverables (outputs/outcomes)					
Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification	
3	**BUW**	**Development of 12 teaching materials : lectures, exercises, practical classes in the field of Road Transportation Systems Engineering.**	**26**	**Review and approval of courses content by the steering committee.**	

Tytuł slajdu/sekcji

WP4

WP4. Summer schools and road transport research laboratories

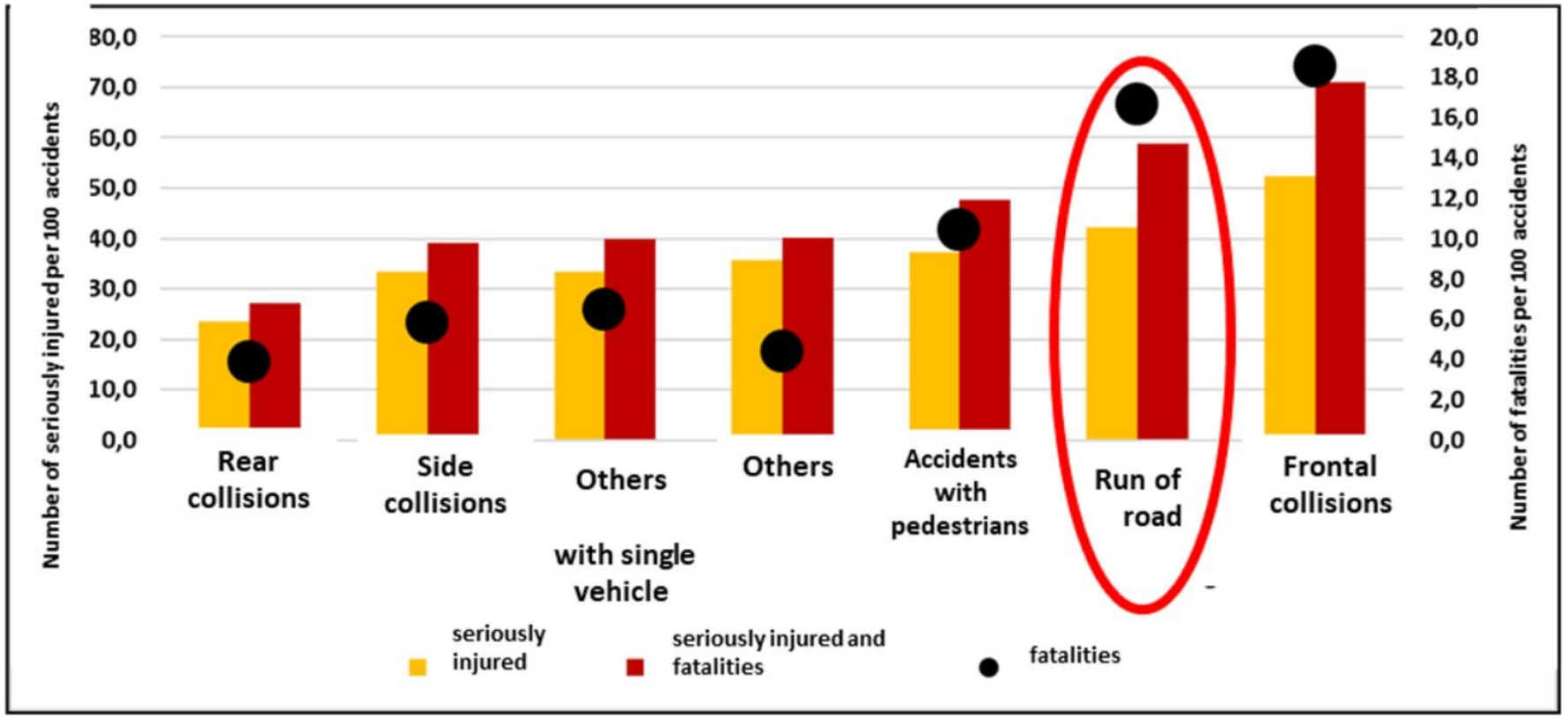
leader AAU

Why is roadside important due to road safety?

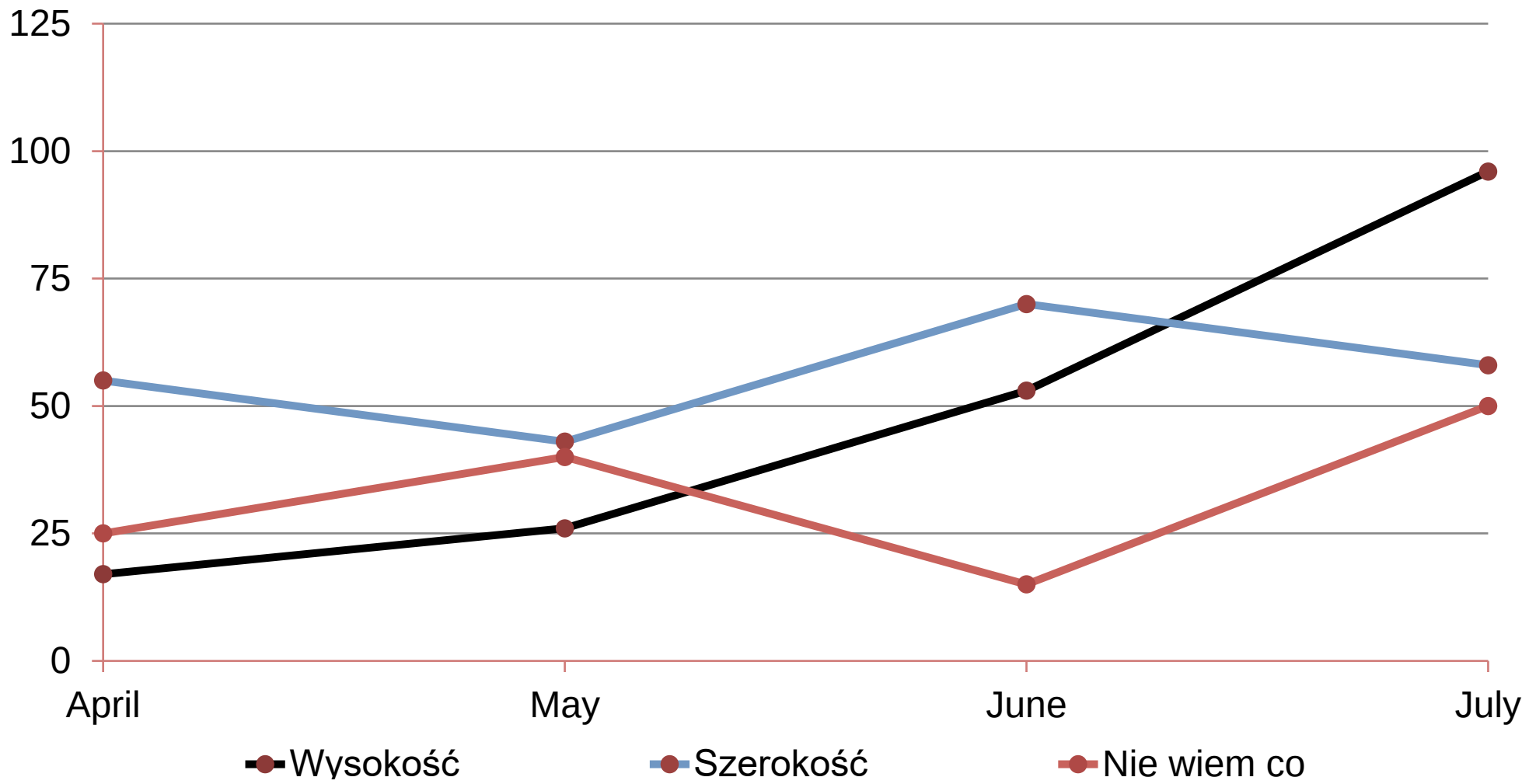
- The task will be implemented as part of work package 3 (WP3. Teaching materials development related to the road infrastructure safety inspection).
- Due to the different approach to the inspection procedures in partner countries (including the roadside), on the basis of the work carried out in WP2, the RSIR Instruction will be developed (with elements of roadside safety management), which will be verified under Intellectual Outputs 6-8.
- The key to understanding the needs and building tools for road infrastructure management, is to identify hazards and their sources, also in the roadside.
- These hazards are the result of incorrect design, construction, installation and maintenance of road restraint system, infrastructure elements, objects, topography and the presence of sensitive areas (pedestrian and bicycle infrastructure, gas stations, residential buildings, playgrounds, etc.).
- Teaching students and improving the competences of road infrastructure managers in the field of roadside is even more important, in the context of accident statistics in many European countries - e.g. in Poland, about 18% of all road fatalities are registered in accidents related to roadside accidents.

Scope and genesis of the IO - RSIR

In Poland, between 2017 and 2019 there were 15,50 accidents related to the roadside (10% of all accidents), involved 18,700 people injured (16%), including 6,100 seriously injured (16%) and 1,800 people killed (18%).

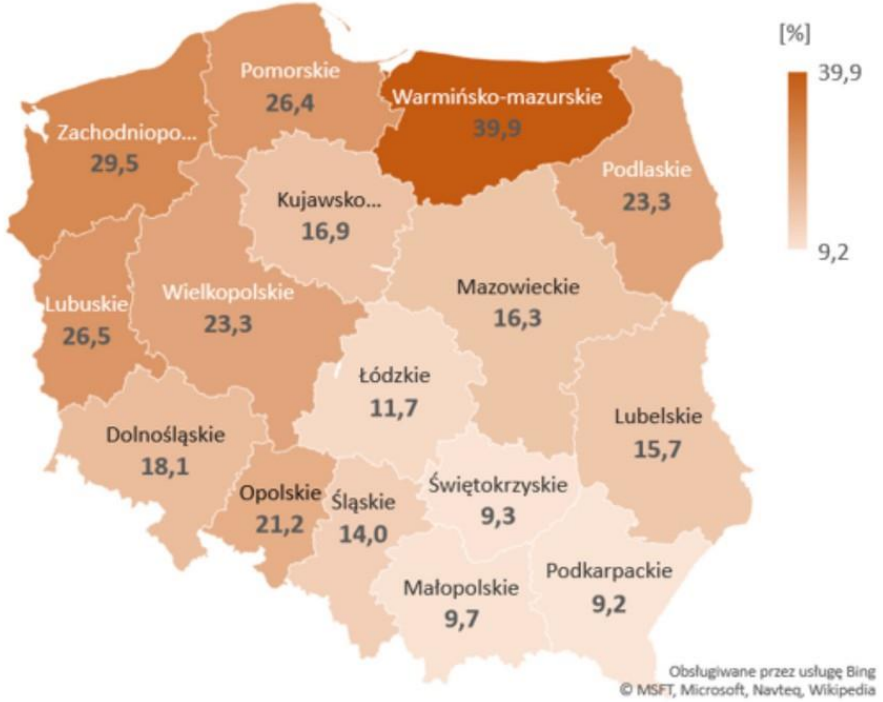


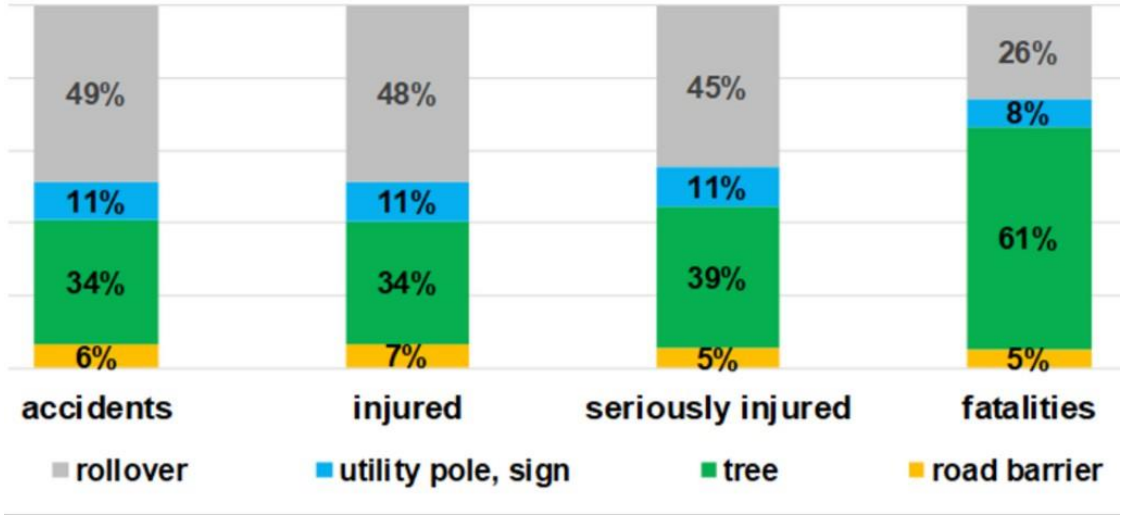
Scope and genesis of the IO - RSIR



Percent of fatalities in roadside accidents

In Poland, between 2017 and 2019 there were 15,50 accidents related to the roadside (10% of all accidents), involved 18,700 people injured (16%), including 6,100 seriously injured (16%) and 1,800 people killed (18%).





Tutaj jakieś zadania do relizacji

Zadanie 1

Krótko opisz, co chcesz omówić.

Zadanie 2

Krótko opisz, co chcesz omówić.

Zadanie 3

Krótko opisz, co chcesz omówić.

DISCUSSION

InfRO@D

EUROPEAN DIGITAL EDUCATION IN RIM

Co-funded by the
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GDAŃSK UNIVERSITY
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Bauhaus-
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