Bezpieczny i Zrównoważony Transport Powierzchniowy
Warszawa

Scientific and Organizing Problems Concerning European Grants Related to Shifting Wheelset

Andrzej Chudzikiewicz

Warszawa
listopad 2005


TRANSPORT CORRIDORS
IN CENTRAL AND EASTERN EUROPE
PKP
I. Helsinki-Tallinn-Riga-Kaunas-Warszawa
& Riga-Kaliningrad-Gdańsk
II. Berlin-Warszawa-Mińsk-Moskwa
III. Berlin/Dresden-Wrocław-Lwów-Kijów
IV. Berlin/Norynberga-Praha-Budapeszt
-Constanta/Thessaloniki/Istanbuł
V. Wenecja-Trieste/Koper-Ljubljana
-Budapest-Uzgorod-Lwów (Kijów)
korytarz A: Bratislava-Žilina-Košice-Uzgorod
korytarz B: Rijeka-Zagrzeb-Budapeszt
korytarz C: Ploče-Sarajevo-Osijek-Budapeszt
VI. Gdańsk-Warszawa-Katowice-Žilina
korytarz: Katowice via Ostrava do korytarza IV
VII. Dunaj (droga wodna)
VIII. Durres-Tirana-Skopje-Sofia-Varna
IX. Helsinki-St Petersburg-Moskwa/Psków-Kijów -Ljubasevka
-Kichiniev-Bukareszt-Dimitrovgrad-Alexandroupoli
branch A: Ljubasevka-Odessa
branch B: Kijów-Mińsk-Vilnius-Kaunas-Kłajpeda/Kaliningrad
X. Salzburg-Liubljana-Zagrzeb-Belgrad-Niš-Skopje-Veles-Thesaloniki
korytarz A: Graz-Maribor-Zagrzeb
korytarz B: Budapeszt-Novi Sad-Beograd
korytarz C: Niš-Sofia z korytarza IV do Istambułu
Główne linie EU
Inne linie
Porty morskie korytarzy
Kierunki ekspansji TEN
FINLAND
HELSINKI
ST. PETERSBURG
TALLINN
ESTONIA
OSLO
STOCKHOLM
MOSCOW
NIZHNY NOVGOROD
LATVIA
RIGA
VITEBSK
RUSSIA
GÖTEBORG
KLAJPEDA
LITUANIA
KAUNAS
VILNIUS
GLASGOW
KOBENHAVN
KALININGRAD
RUSSIA
MINSK
GDAŃSK
SWINOUJŚCIE
MALBORK
BIAŁYSTOK
BELARUS
GOMEL
DUBLIN
SZCZECIN
HAMBURG
WARSZAWA
BREST
BERLIN
POZNAŃ
POLAND
ŁÓDŹ
AMSTERDAM
WROCŁAW
LUBLIN
UKRAINE
KIEV
DRESDEN
KATOWICE
KRAKÓW
LVOV
LONDON
BRUXELLES
KÖLN
PRAHA
NÜRNBERG
USTI N/O
ŽILINA
SLOVAKIA
CHOP
KICHINIEV
PARIS
LUXEMBOURG
BRATISLAVA
MÜNCHEN
BUDAPEST
ODESSA
WIEN
ROMANIA
HUNGRY
ARAD
BRASOV
INNSBRUCK
LJUBLJANA
TIMISOARA
BERN
TRIESTE
ZAGREB
BUCURESTI
LYON
CONSTANTA
MILANO
CRAIOVA
VENEZIA
SARAJEVO
BEOGRAD
RIJEKA
BULGARIA
VARNA
SOFIA
SAMSUN
BOLOGNA
BURGAS
SPLIT
NIŠ
PLOVDIV
MARSEILLE
PLOČE
SKOPJE
ISTANBUL
ANKARA
ROMA
DURRES
TIRANĒ
ALEXANDROPOLIS
THESSALONIKI
NAPOLI
BARCELONA
MADRID
LISBOA
ATHINAI
opracował graficznie inż. Marek Gajewski
nadzór merytoryczny mgr inż. Andrzej Kopicki
Dyrekcja Generalna PKP
Wrzesień '98

SIXTH FRAMEWORK PROGRAMME
PRIORITY 6
SUSTAINABLE DEVELOPMENT, GLOBAL CHANGE AND ECOSYSTEMS
THEMATIC AREA: SUSTAINABLE SURFACE TRANSPORT

Contract for: **SPECIFIC TARGETED RESEARCH PROJECT**

Annex I - "Description of Work"

Project acronym: **INTERGAUGE**

Project full title: **INTEROPERABILITY, SECURITY AND SAFETY OF GOODS MOVEMENT WITH 1435 AND 1520 (1524) mm TRACK GAUGE RAILWAYS: NEW TECHNOLOGY IN FREIGHT TRANSPORT INCLUDING HAZARDOUS PRODUCTS**

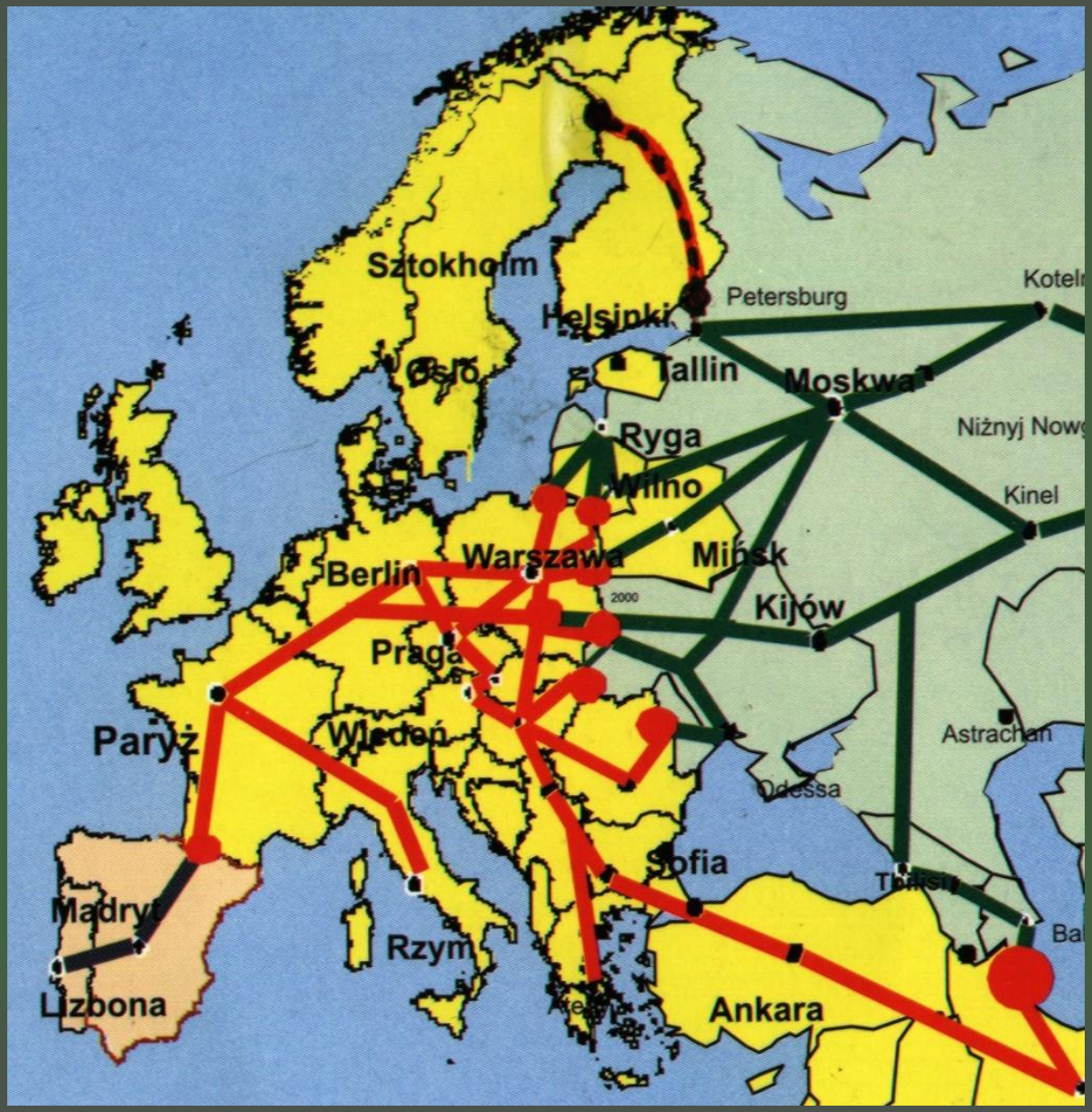
Proposal/Contract no.: PL 516205
Date of preparation of Annex I: 15.11.2004
Operative commencement date of contract: ***(to be completed by Commission)***

Goal of the Project:

developing freight movement technology INTERGAUGE, especially with regard to hazardous products, enabling the interoperable, safe and secure shipment between railways with different gauge widths.

INTERGAUGE TECHNOLOGY

- The prototypes of freight bogie cars with gauge adjustable wheel set SUW-2000 II working at higher capacity (axle loads increased to 225 kN) and higher speed (120 kph) with lower tare weight ratio,
- Prototype of an automatic new generation track gauge-changing station and transport management and operation of the stations situated at the changing points between 1435 mm and 1520(1524) mm railways.


Sztokholm
Helsinki
Petersburg
Oslo
Tallin
Moskwa
Ryga
Wilno
Nižnyj Nowg
Kinel
Berlin
Warszawa
Mińsk
2000
Kijów
Praga
Paryż
Wiedeń
Astrachan
Odessa
Sofia
Tbilisi
Madryt
Rzym
Lizbona
Ankara

PROJECT OBJECTIVES

Three groups of topic are to be considered while realising the project:

- **WP1 – defining the principles of new INTERGAUGE technology applied while rolling stock with a gauge adjustable wheel sets moving through border crossings;**
- **WP2 – development of prototypes construction of 2 types of freight bogie cars equipped with adjustable wheel sets;**
- **WP3 – construction of the track gauge changing station and the equipment used to operate it, enabling safe movement of wagons developed in WP2 within the time limits set in WP1.**

GRAPHICAL PRESENTATION OF WORK PACKAGES

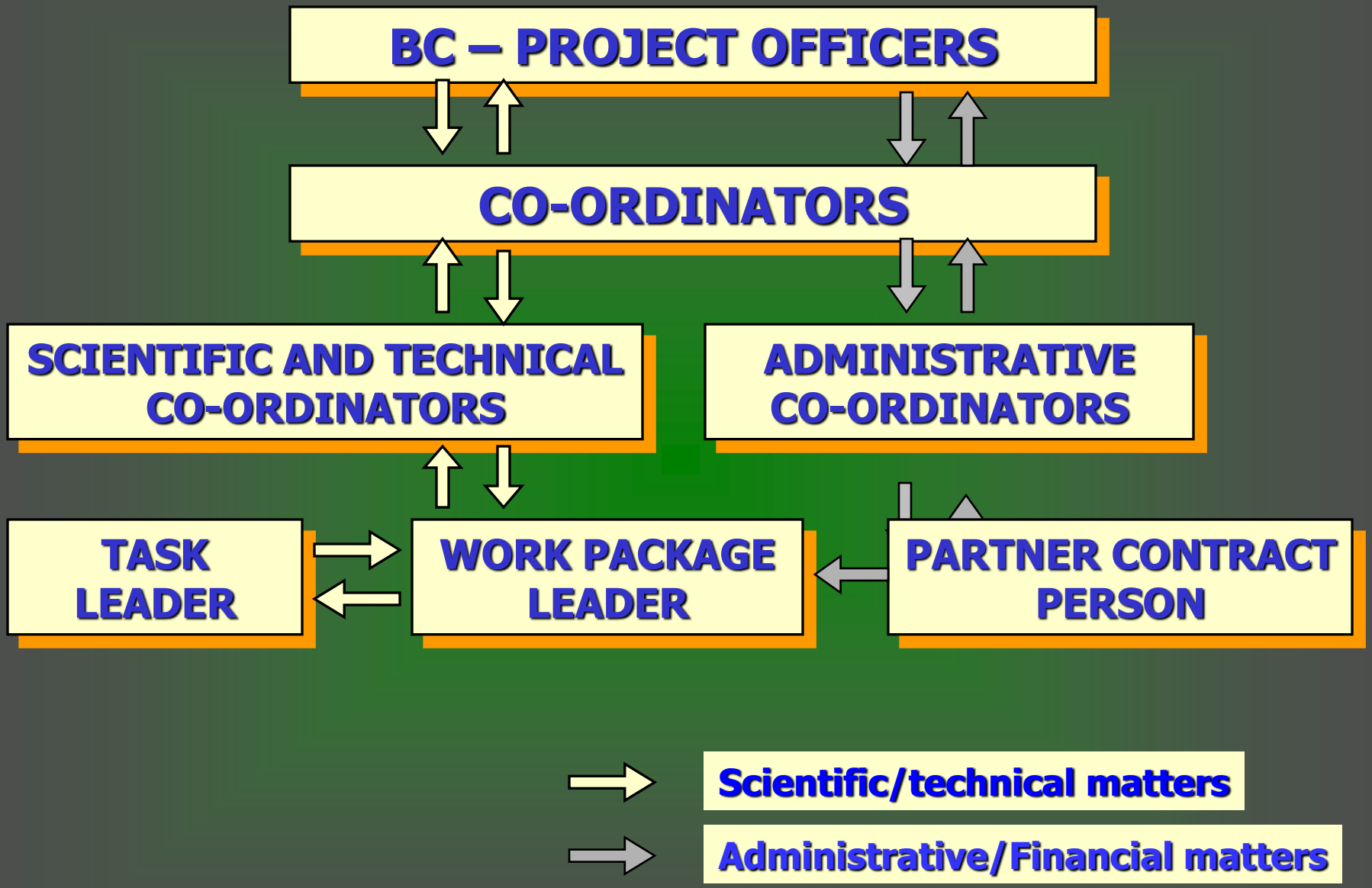
WP4. MANAGEMENT

WP1. THEORETICAL MODEL OF APPLICATIONS OF NEW TECHNOLOGY

WP2. CONSTRUCTION AND EQUIPMENT OF FREIGHT CARS CONSTRUCTION OF AN INCREASED LOAD AND SPEED

WP3. CONSTRUCTION OF TRACK SWITCHING STATION PROTOTYPE WITH DEVICES TO AUTOMATE ITS WORK AND MONITORING OF THE SWITCHING PROCESS

STRUCTURE OF ORGANIZATION OF THE PROJECT


BC – PROJECT OFFICERS
CO-ORDINATORS
SCIENTIFIC AND TECHNICAL CO-ORDINATORS
ADMINISTRATIVE CO-ORDINATORS
TASK LEADER
WORK PACKAGE LEADER
PARTNER CONTRACT PERSON
Scientific/technical matters
Administrative/Financial matters

List of Participants

Part. Role /*	Par no.	Participant name	Particip. short name	Country	Date enter project	Date exit project
CO	1	Politechnika Warszawska (Warsaw University of Technology)	PW (WUT)	POLAND	1	28
CR	2	Kiev University of Transport Economy and Technologies	KUTET	UKRAINE	1	4
CR	3	Railway Scientific and Technical Centre	CNTK	POLAND	1	28
CR	4	State Research Centre of Railway Transport of Ukraine	SRCUZ	UKRAINE	7	10
CR	5	Vilnius Gediminas Technical University	VGTU	LITHUANIA	7	10
CR	6	University of Żlina	UŻ	SLOVAKIA	7	10
CR	7	Dniepropietrovsk National University of Railway Transport	DNURT	UKRAINE	3	28
CR	8	The Institute of Logistics and Warehousing	IliM	POLAND	1	7
CR	9	Rolling Stock Repair Works	ZNTK	POLAND	7	20
CR	10	Kryukovsky Railway Car Building Works	KRCBW	UKRAINE	7	22
CR	11	JP - Transplan Ltd.	POYRY	FINLAND	7	22
CR	12	KOLTRAM	KT	POLAND	7	22
CR	13	TENS Ltd.	TENS	POLAND	7	22
CR	14	Polish State Railways – Polish Railway Lines Joint Stock Company	PKP PLK S.A	POLAND	7	22

*/ CO = Coordinator, CR = Contractor

CONCLUSIONS