Asset Management in Polish Road Administration

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AGENDA

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2. Construction
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    - Routine maintenance
    - Rehabilitation
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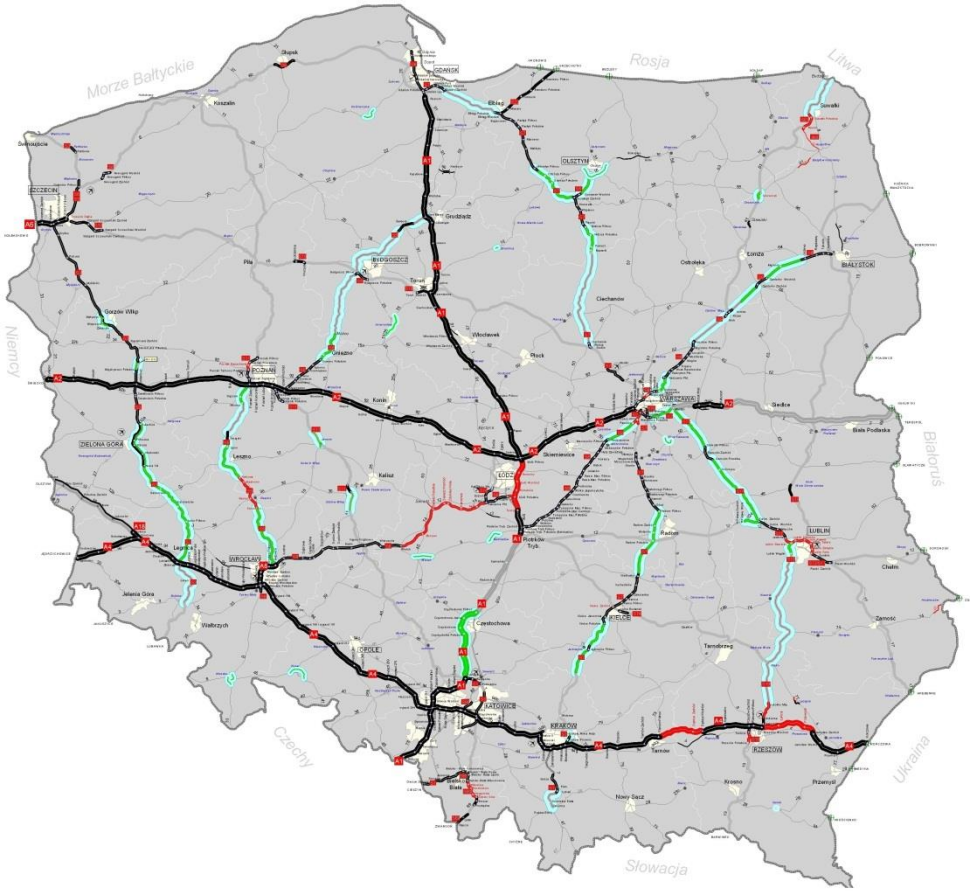
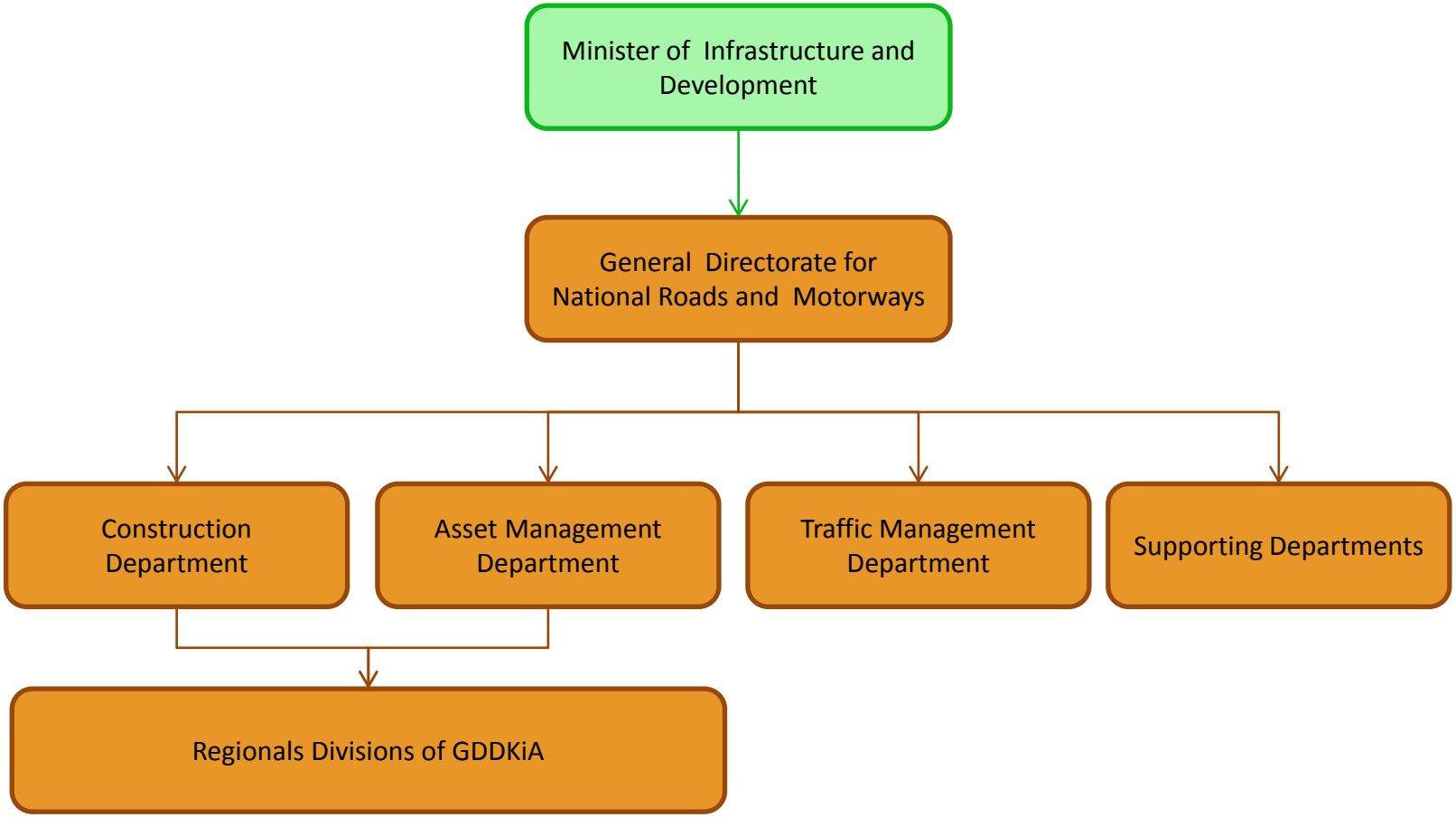
Introduction

GDDKiA manages almost 19 000 km of national roads in Poland



Introduction

GDDKiA in government's hierarchy



Introduction

Stakeholders of GDDKiA

Users

Contractors

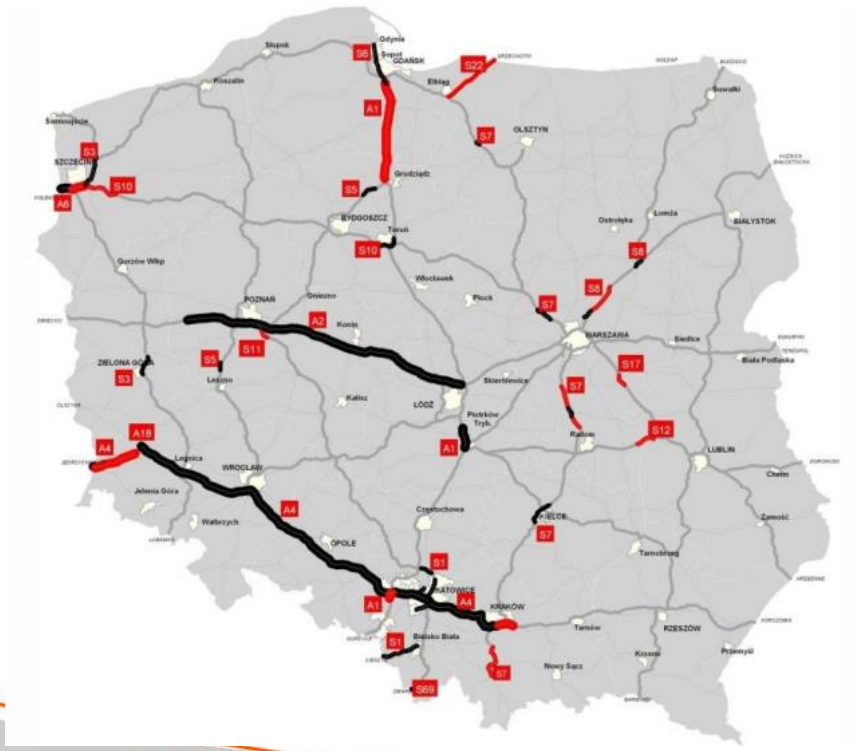
MINISTERSTWO
INFRASTRUKTURY I ROZWOJU

Government

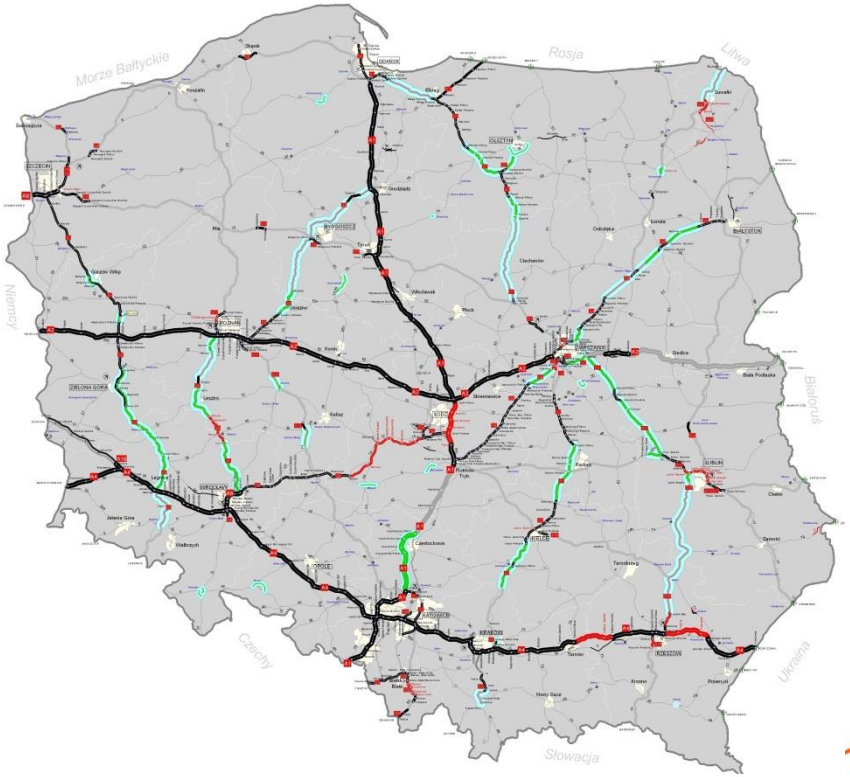
Construction

GDDKiA has constructed almost 3 100 km highways and expressways in 11 years

2003

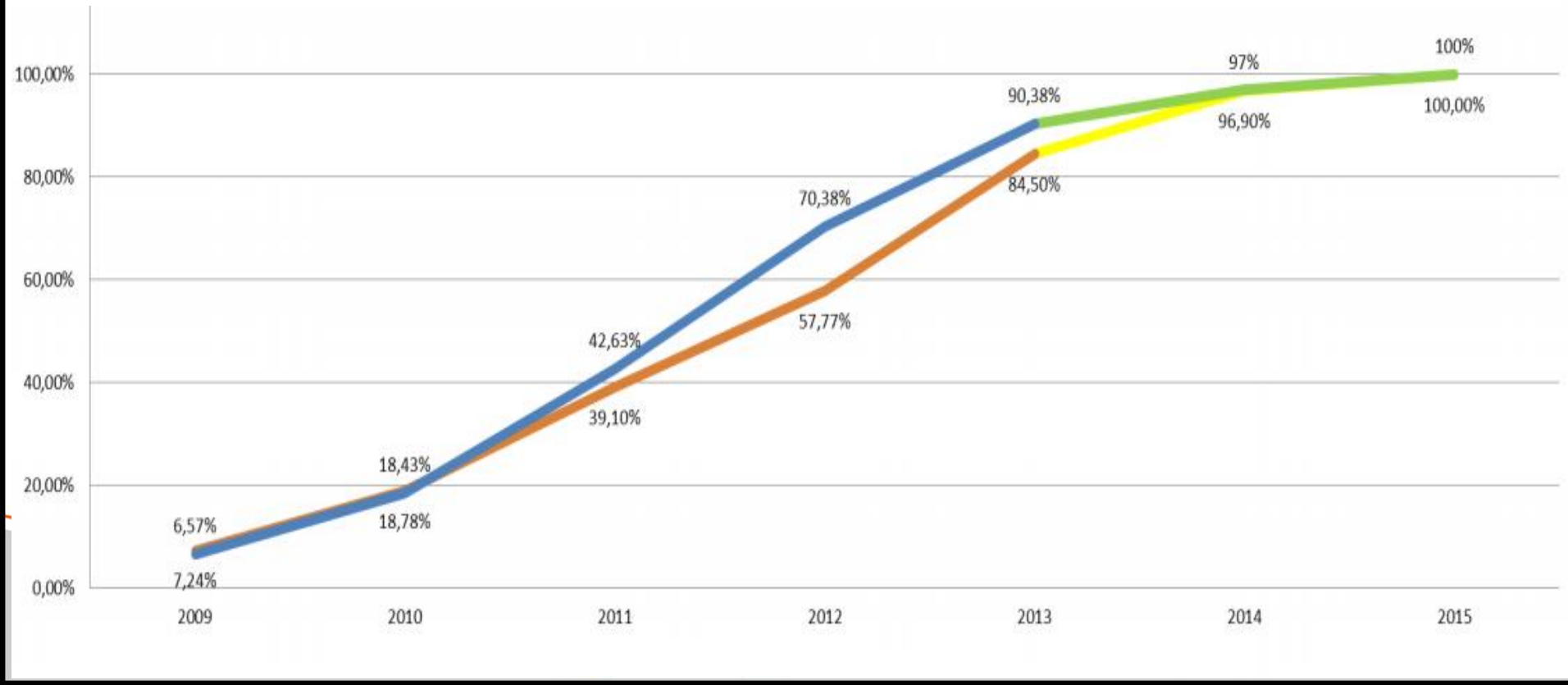


2014



GDDKiA has spent 20,2 mln € (26,7 mln USD) for construction

EU will refund a half of this grand total.
The refundation is completed in 85% by now.



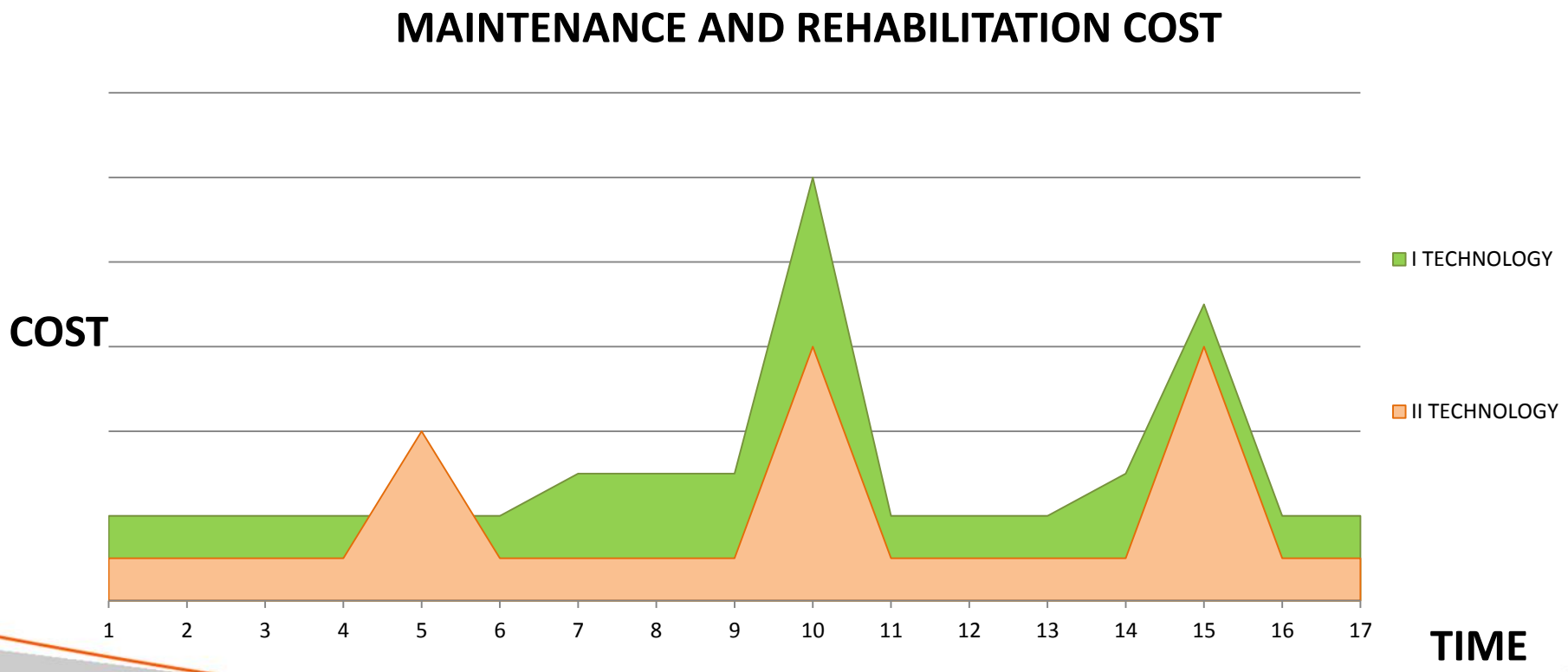
Construction - How we manage it?

GDDKiA uses 3 types of contracts:

1. Separate contracts for Design and Construction
2. Design and Build
3. Optimize and Build

Construction's gaps

How to include LCCA in construction's tender and chosen technologies?



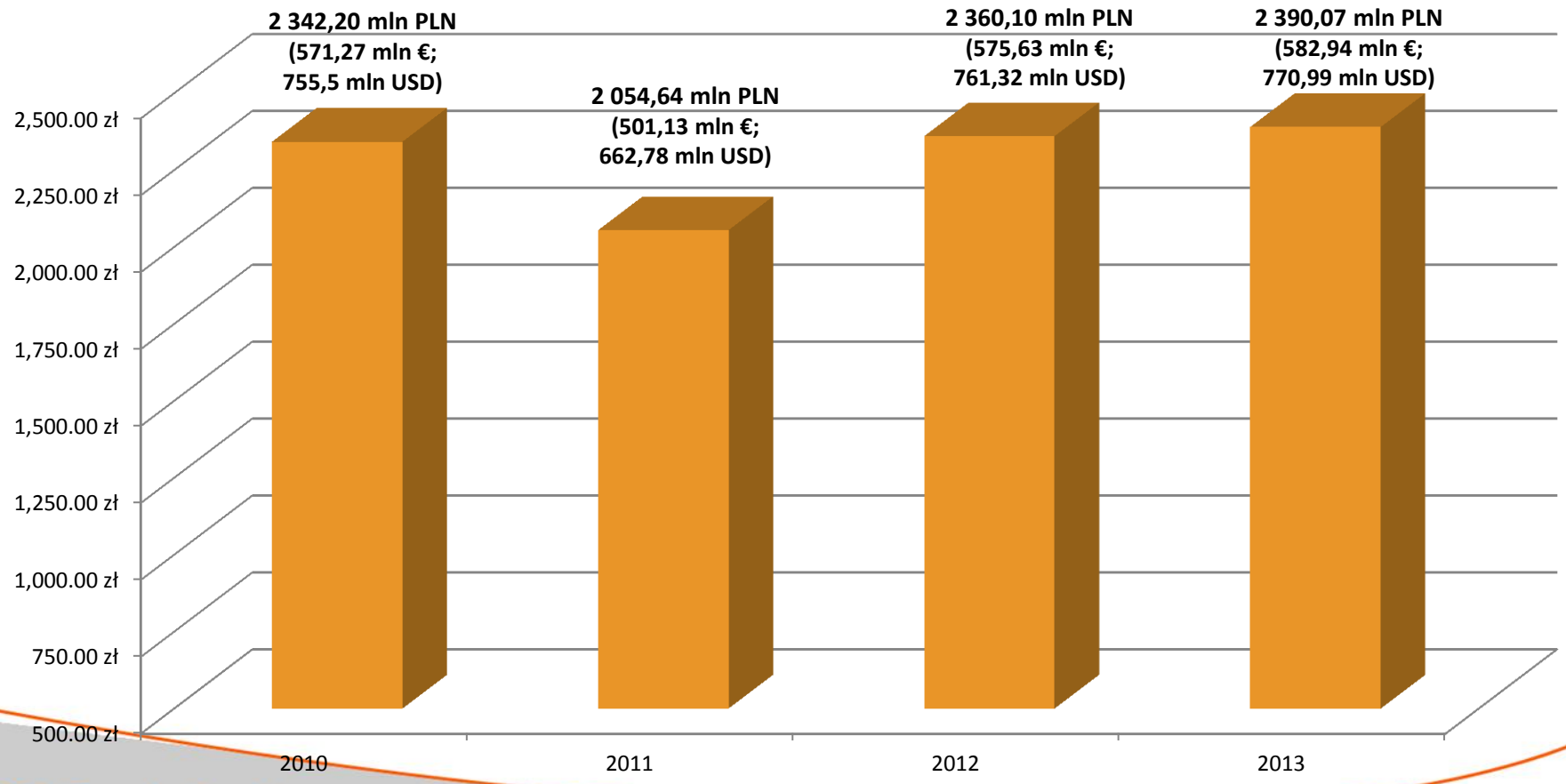
What is important to manage asset effectively and efficiently?

Road protection (ITS, safety equipment, weight in motion system)

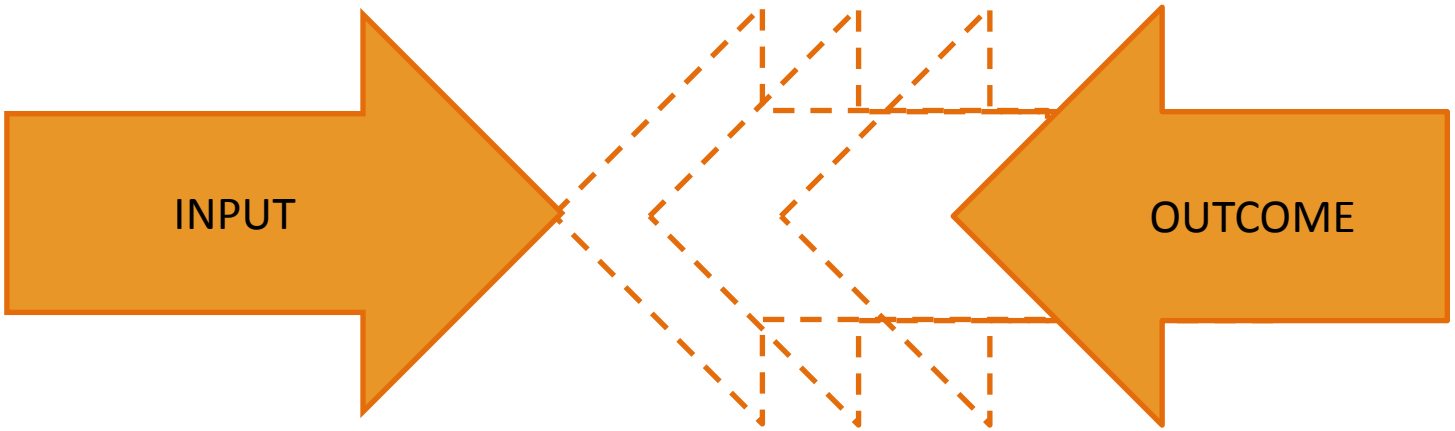
Keep road network in good condition by maintenance.

Rehabilitate asset.

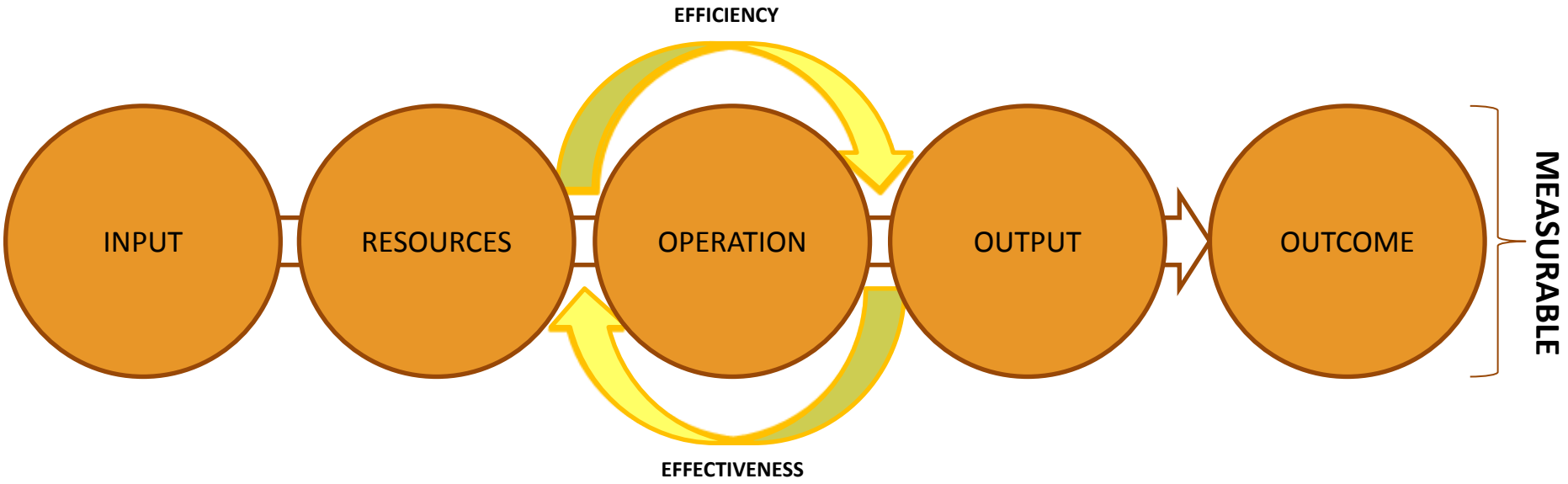
Rehabilitation and maintenance budget spent till 2013



Routine maintenance



Optimize our operation



PBC implementation

New built roads are maintained according to PBC rules, we call it „deliver the outcome”

Now we have almost 1150 km of roads maintained in that type of contracts, by over 20 Contractors.

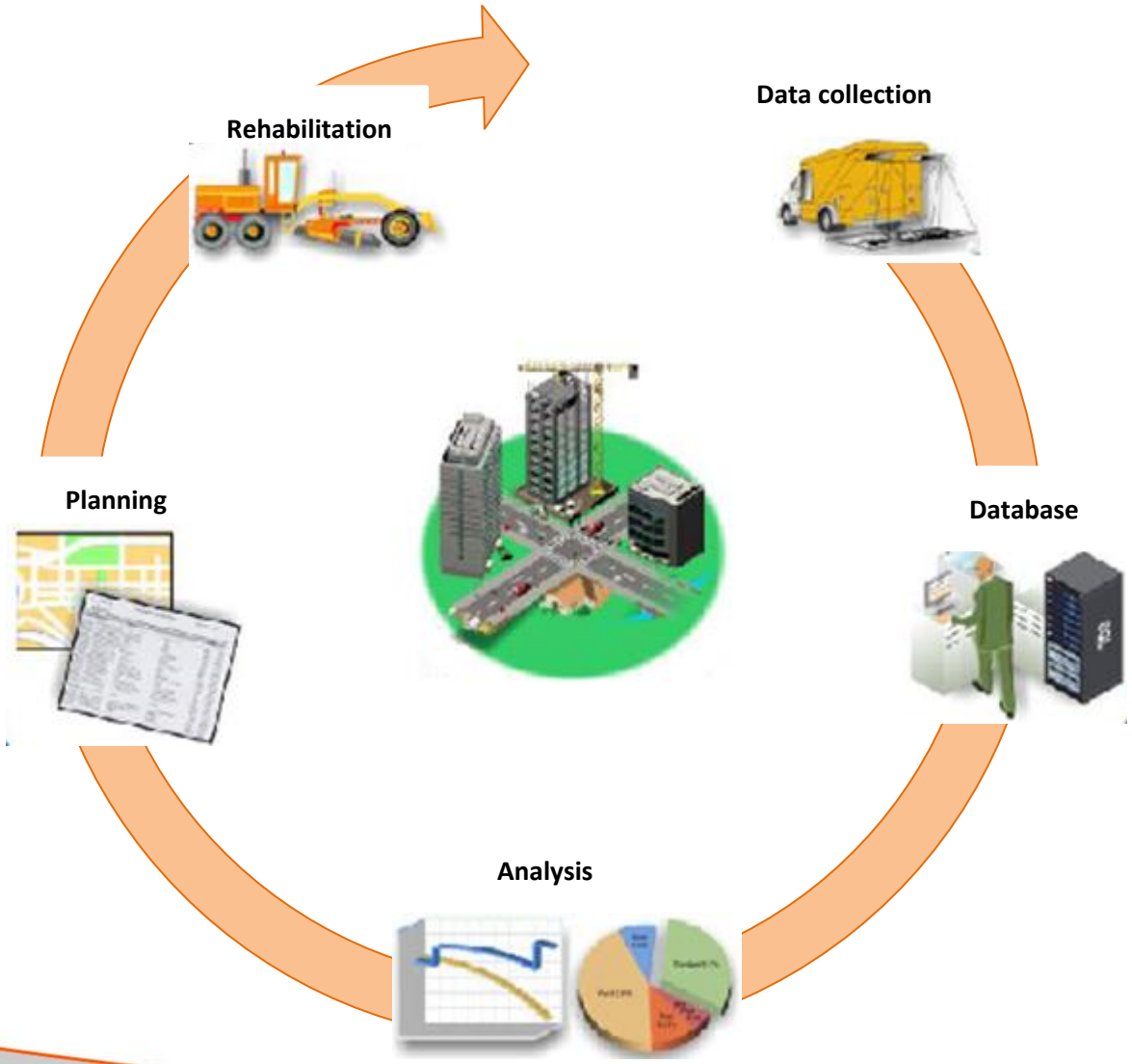
Performance indicators

TECHNICAL	NON-TECHNICAL	ECONOMICAL
Rut depth IRI Roughness Surface condition Cleanliness Dehydration condition Illumination	Output Outcome Goals	Financing level Realization per cost and period Social cost

PBC - gaps

- How to describe the indicators to make them measurable and easy to control?
- When we know these indicators are described correctly?
- Now we maintain new roads in PBC, but how to implicate it on existing roads?
- How to implement the rehabilitation process and all technical indicators in PBC contract and how will we know how much it will cost?

Asset Life Cycle



Surface diagnostic measurement (DSN)

We measure:

Rut depth by RSP (21 lasers)

IRI by RSP (21 lasers)

Roughness by TWO and SRT-3

Deflection by FWD

We want to measure also:

Macrotexture

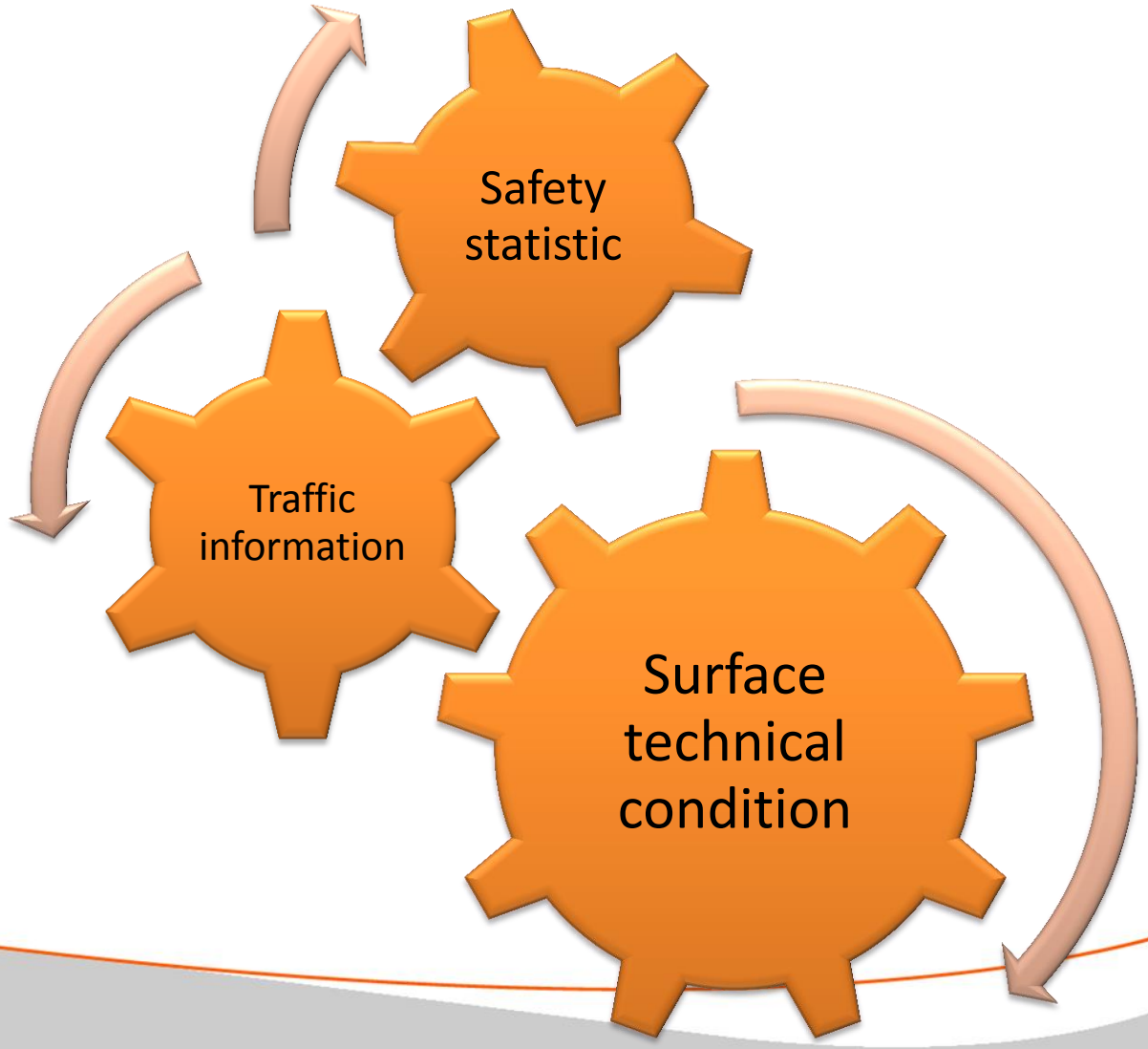
Surface condition

Pavement Management System - gaps

We are changing our Pavement Management System (PMS) for long-term planning.

Now we use old one which gives us information about surface condition only for one-year planning.

Current approach to PMS



Summary

Polish Road Administration is in progressive time, which gives us opportunity to bring lot of changes, such as:

- construction of new expressways until 2020,
- operations optimization,
- implement new technologies and techniques.

All this to deliver services to the user more efficiently and effectively.

But we also have to fill in gaps and improve processes.

Find out more at www.gddkia.gov.pl

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