

Support for Implementing Measures for the South East Core
Regional Transport Network Multi Annual Plan
(EuropeAid/125783/C/SER/MULTI)

ACCESS CHARGES IN CROATIA

prepared by
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Contents

- Has that been track access study carried out? What is its recommendation?
- Is there recommendation of the study being implemented? If not, why?
- If it is not, what is implemented and with what justification behind it? Is it fair?
- Who is responsible to approve track access charges?
- Have track access charges been included in the network statement?
- Is there a regulatory body (market regulator) and who is it?
- Does, in fact, the market regulator currently play any role in your country?
- Has there been any appeal against decision of regulators and what has been the outcome?

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Organisation of HŽ



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Track Access Study

- Study - Research and Setting up the Railway Infrastructure Charges - Institute of Transport and Communications, Zagreb, Croatia – 2006
- Infrastructure charges model
 - single step, based on train km
 - simple, easily upgraded

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Access Charges Model - Formula

$$C_{ij} = T_i * \sum L_j * C_{v/km} * K_{ij}$$

Where:

- C_{ij} – total fee for the train path
- T_i – equivalent for the type of the train
- L_j – line parameter
- l_j (km) – length of the train path
- $C_{v/km}$ (kn/v/km) – price per train kilometer
- K_{ij} – coefficient of price correction

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T_i – type of the train $C_{ij} = T_i * \sum L_{lj} * C_{vlkm} * K_{ij}$

- Categorization of trains is done according to the following principles:
 - exploitations purposes
 - technical and technological specificity
- 12 train categories
 - 6 categories in passenger transport and
 - 6 categories in freight transport

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T_i – type of the train $C_{ij} = T_i * \sum L_{lj} * C_{vlkm} * K_{ij}$

- Equivalent for the type of trains in passenger transport:

T1 – EuroCity, InterCity, express, fast trains	1.40
T2 – rapid, local, border, suburban	0.60
T11 – tilting trains	1.10
T12 – trains for accompanied cars	0.90
T13 – agency trains	1.50
T14 – empty trains	0.50
- Equivalent for the type of trains in freight transport:

T3 – express, fast, direct, sectional i block trains	1.20
T4 – trains for combined transport	0.80
T31 – working and industrial trains	0.60
T32 – military and empty trains	0.50
T33 – trains with exceptional transport	1.60
T34 – locomotive trains	0.10

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L_j – Line parameter $C_{ij} = T_i * \sum L_{lj} * C_{vlkm} * K_{ij}$

- Line definition is done according to the following principles:
 - technical and technological complexity
 - technological position on the pan European transport corridors
 - regional position
- 6 lines are defined

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L_j – Line parameter

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L1 = 1.9
L2 = 1.4
L3 = 0.5
L4 = 0.7
L5 = 0.6
L6 = 0.9

$C_{ij} = T_i * \sum L_{lj} * C_{vlkm} * K_{ij}$

- l_j – sum of train kilometres on every line
- C_{vlkm} – price per train kilometre. Prices differ for passenger and freight transport
- K_{ij} – correction coefficient – increase of the basic price for the price of renewal i.e. renewal and development of railway infrastructure
 - Coefficient of increase of marginal costs:

□ K1 – coefficient of marginal costs	1.00
□ K2 – coefficient of marginal costs+renewal	1.15
□ K3 – coefficient of marginal costs+renewal+development	1.25

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Model for infrastructure access charges

- Model is based on matrix principle. Solution of matrix gives an access charge for every train path on every line
- Lines of the matrix constitute railway lines grouped in 6 line categories
- Columns of the matrix constitute types of trains

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Matrix of lines and types of trains

Line/Train type	T1	T2	T3	T4	Tn
L1	T1*L1	T2*L1	T3*L1	T4*L1	Tn*L1
L2	T1*L2	T2*L2	T3*L2	T4*L2	.....	Tn*L2
L3	T1*L3	T2*L3	T3*L3	T4*L3	.....	Tn*L3
L4	T1*L4	T2*L4	T3*L4	T4*L4	.....	Tn*L4
L5	T1*L5	T2*L5	T3*L5	T4*L5	.....	Tn*L5
L6	T1*L6	T2*L6	T3*L6	T4*L6	.....	Tn*L6

Access Charges

- Study recommended the following prices for the minimum access package:
 - Passenger transport 2.57 €/train km
 - Freight transport 5.33 €/train km
- Prices determined and applied by IM (1€=7.436):
 - 2007: P-0.41kn (0.055€), F-0.96kn (0.129€)
 - 2007/2008: P-1.98kn (0.266€), F-3.18kn (0.428€)
 - 2008/2009: P-4.22kn (0.568€), F-6.12kn (0.823€)
 - 2009/2010: P-8.45kn (1.136€), F-12.25kn (1.647€) (NS)

Proportion of passenger and freight transport in total infrastructure costs

- Infrastructure costs are recorded for infrastructure subsystems (civil engineering, electric energy, traffic control etc.)
- Taking into account gross tone kilometres and train kilometres, infrastructure costs for timetable 2008/2009 are distributed as follows:
 - Passenger transport: 53,8%
 - Freight transport: 46,2%

Regulatory body

- Agency for Regulation of Railway Market
- Act on establishment – 2007
- Ministry of the Sea, Transport and Infrastructure – Act on Railways (2003 – application 2006)
- No real role

Thank you for your attention

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