



Road construction in Czechia

Petr Svoboda
Road contractors association

Content

- Road contractors association – more than 40 years
- Roads in Czechia and financing
- Important conferences and other events
- Production of asphalt mixtures
- New degree for reclaimed asphalt
- New standards for asphalt mixtures
- BIM implementation
- Human and material sources

Members of RCA

SDRUŽENÍ PRO VÝSTAVBU SILNIC

Členské organizace Sdružení pro výstavbu silnic



Stav k 1. 9. 2021

Thámová 181/20, Praha 8 www.sdruzeni-silnice.cz

SDRUŽENÍ PRO VÝSTAVBU SILNIC

Členské organizace Sdružení pro výstavbu silnic



Čestní členové Sdružení



Stav k 1. 9. 2021

Thámová 181/20, Praha 8 www.sdruzeni-silnice.cz

Board of RCA

- GCA– deputies of 50 companies
- Board:
- Ing. Petr Laušman - Swietelsky
- Ing. Petr Svoboda
- Ing. Martin Borovka – VINCI
- Ing. Zdeněk Babka – M-Silnice
- Ing. Radovan Hrnčíř - HBH project
- Ing. Michal Jurka - Skanska
- Ing. Josef Neuwirth - Metrostav
- Ing. Martin Bašár- Strabag
- Ing. Marek Svoboda - Pragoprojekt

Předsednictvo
Sdružení pro výstavbu silnic
na období 2023–2025

**SDRUŽENÍ
PRO VÝSTAVBU
SILNIC**

Předseda



Ing. Petr Laušman
SWIETELSKY stavební s.r.o.

Jednatel



Ing. Petr Svoboda
PRAGOPROJEKT, a.s.

Mistopředsedové



Ing. Zdeněk Babka
M – SILNICE a.s.



Ing. Martin Bašár
STRABAG a.s.



Ing. Martin Borovka
VINCI Construction CS



Ing. Radovan Hrnčíř
HBH Projekt spol. s r.o.



Ing. Michal Jurka
Skanska a.s.



Ing. Josef Neuwirth
Metrostav a.s.



Ing. Marek Svoboda
PRAGOPROJEKT, a.s.

Na 120. zasedání správní rady Sdružení pro výstavbu silnic dne 7. prosince 2022
v Choceřadech se uskutečnila volba členů předsednictva Sdružení.

Working groups

	Name of the team	Chairman	Secretary
1	Team for legislation	Ing. Marie Vebrová SWIETELSKY stavební s.r.o.	Ing. Radka Knottová
2	Team for project works	Ing. Radovan Hrnčíř HBH Projekt spol. s r.o.	Ing. Radka Knottová
3	Team for quality	Ing. Stanislav Bedřich TPA ČR, s.r.o.	Ing. Pavel Brychta
4	Team for education	Mgr. Karin Bílková STRABAG a.s.	Mgr. Eva Procházková
5	Team for bridges	Ing. Pavel Mařík SMP CZ, a.s.	Ing. Maria Míková
6	Team for asphalt	Ing. Zdeněk Komínek VIALAB CZ s.r.o.	Ing. Milan Slavíček
7	Team for bitumen and emulsions	Ing. Ondřej Dašek, Ph.D. VUT v Brně	Ing. David Matoušek
8	Team for concrete works	Ing. František Niebauer EUROVIA CS, a.s.	Ing. Ivo Dušek
9	Team for aggregate	Ing. Zuzana Sazimová VIALAB CZ s.r.o.	Ing. Petr Svoboda
10	Team for environment	Ing. Jan Valentin, Ph.D. ČVUT v Praze, FSv	Ing. Petr Svoboda
11	Team for safety	Ing. Lukáš Koubek Skanska a.s.	Ing. Petr Svoboda



Conference Asphalt pavement – since 1995



The poster features a background image of an asphalt paver machine on a construction site. The text is overlaid on the image and a dark blue bottom section. The title 'CONFERENCE ASPHALT PAVEMENTS 2023' is in white, with the slogan 'Let's asphalt out of the crisis' in green. The large yellow text 'AV '23' is prominent on the right. The date and location are listed in white on the left. A list of three topics is provided. The website URL is at the bottom. Logos for the organizing institutions are at the very bottom.

CONFERENCE
ASPHALT PAVEMENTS 2023
Let's asphalt out of the crisis

AV '23

28–29 November 2023
České Budějovice,
Czech Republic

Topics:

1. Material and pavement structures testing
2. Construction, maintenance and rehabilitation of asphalt pavements
3. Sustainability and digitalization of asphalt pavements

Information can be found at www.asfaltove-vozovky.cz/en

SCRUŽENÍ PRO VÝTVARBU SILNIC
US
EARA
PRAGOPOLIT

Conferences, trainings, publications, software events and campaigns





2-6 OCTOBER 2023

PRAGUE 2023 - TOGETHER
ON THE ROAD AGAIN

XXVIITH WORLD ROAD CONGRESS 2023

SVĚTOVÝ SILNIČNÍ KONGRES 2023

PRAGUE CONGRESS CENTRE
PRAGUE, CZECH REPUBLIC



750

ABSTRACTS

3000m²

EXHIBITION

35+

NATIONAL PAVILIONS

500+

INVITED STUDENTS

600+

CZECH AND SLOVAK
DELEGATES

5

DAYS OF THE TECHNICAL
PROGRAM IN 5 PARALLEL
SESSIONS

4000+

DELEGATES

100+

INDUSTRIAL PARTNERS

15+

TECHNICAL VISITS

See you in Prague!

www.wrc2023prague.org

Roads in Czech republic

Over 55 thousands of roads

Roads maintained by Czech directoriat of roads

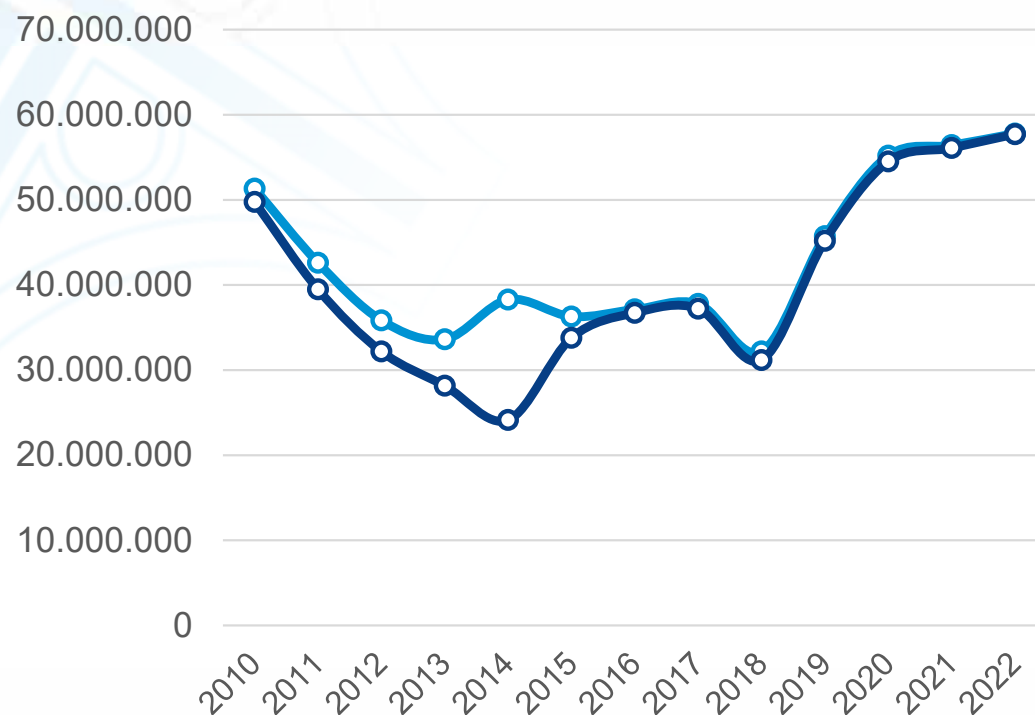
- Motorways – 1 305 km
- 1 st class roads – 5 808 km

Roads maintained by 14 Regions

- 2 nd, 3 rd class roads – more than 48 700 km

Budget of Czech directoriat of roads

Budget 2010–2022 (th. Kč)

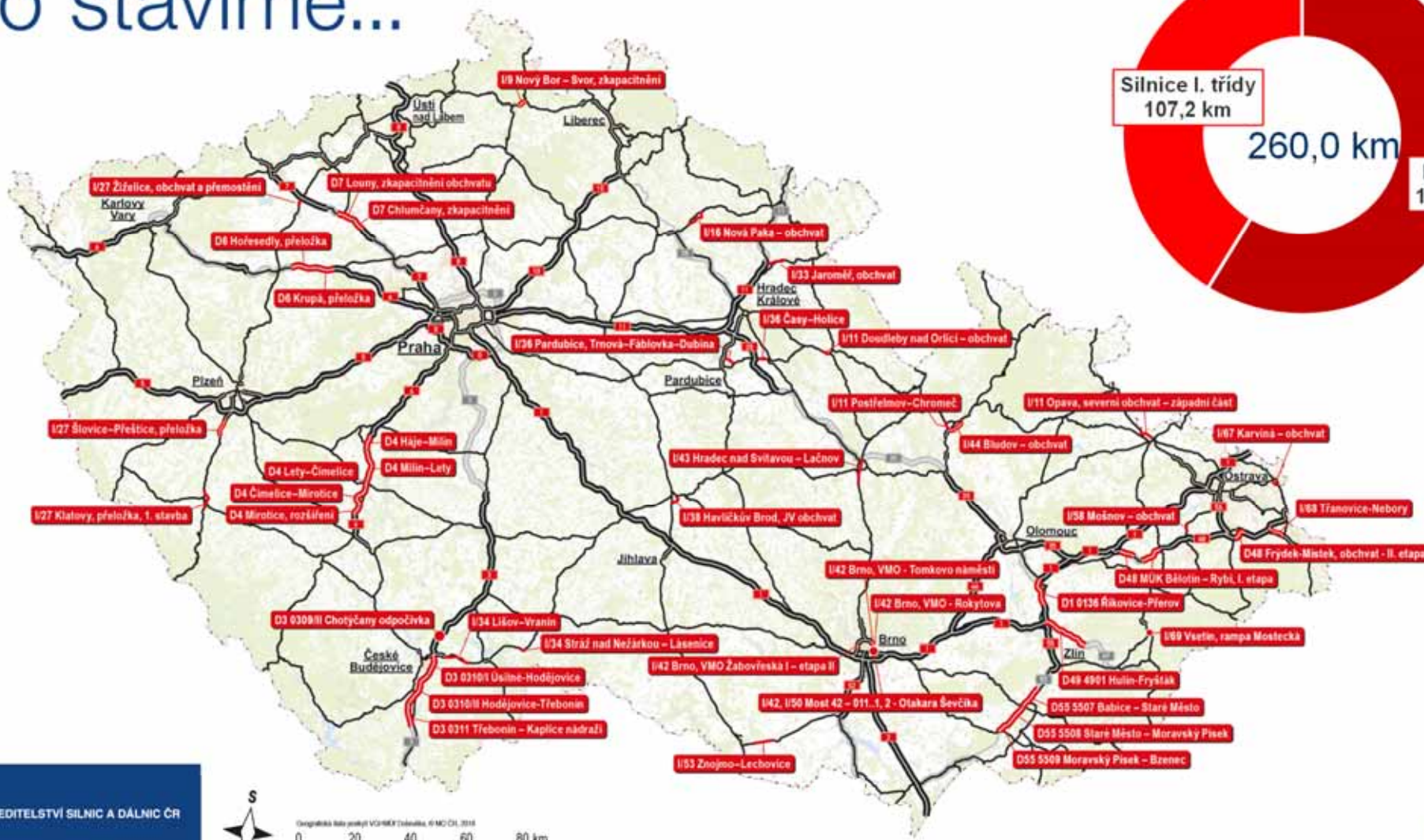


Cudget of Czech fund for traffic infrastructure čerpání v letech 2010 – 2022 (th. Kč)

Year	Budget - plan	Budget - reality	%
2010	51 325 255	49 754 147	96,94%
2011	42 619 526	39 492 514	92,66%
2012	35 846 875	32 184 159	89,78%
2013	33 618 913	28 161 243	83,77%
2014	38 278 035	24 132 956	63,05%
2015	36 291 663	33 789 385	93,11%
2016	37 131 707	36 724 760	98,90%
2017	37 772 544	37 211 773	98,52%
2018	32 184 412	31 181 321	96,88%
2019	45 730 465	45 192 897	98,83%
2020	55 186 546	54 508 756	98,77%
2021	56 428 245	56 089 235	99,40%
2022	57 789 069	57 721 783	99,88%
2023	65 463 243	—	—

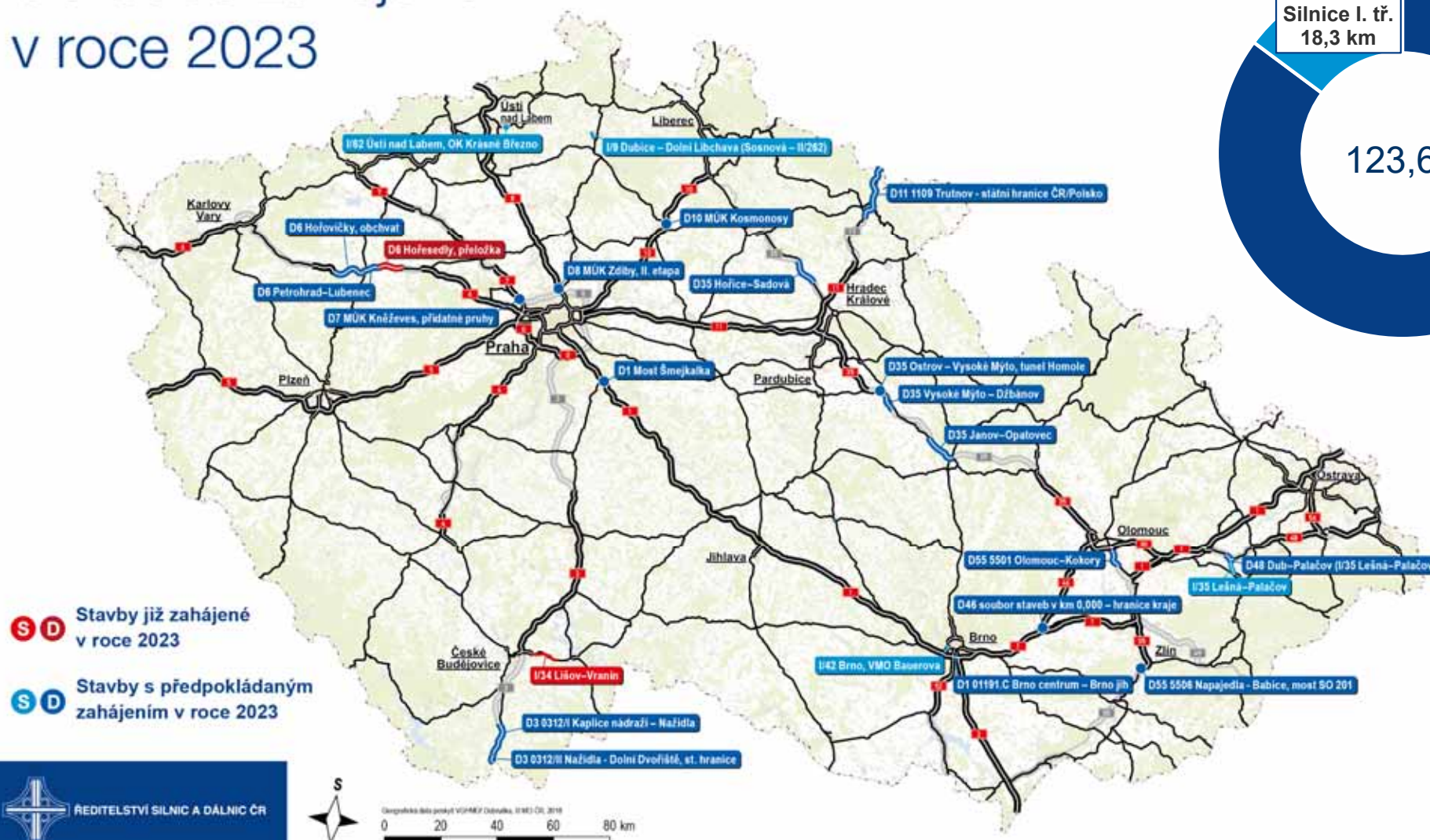
Under construction

Co stavíme...



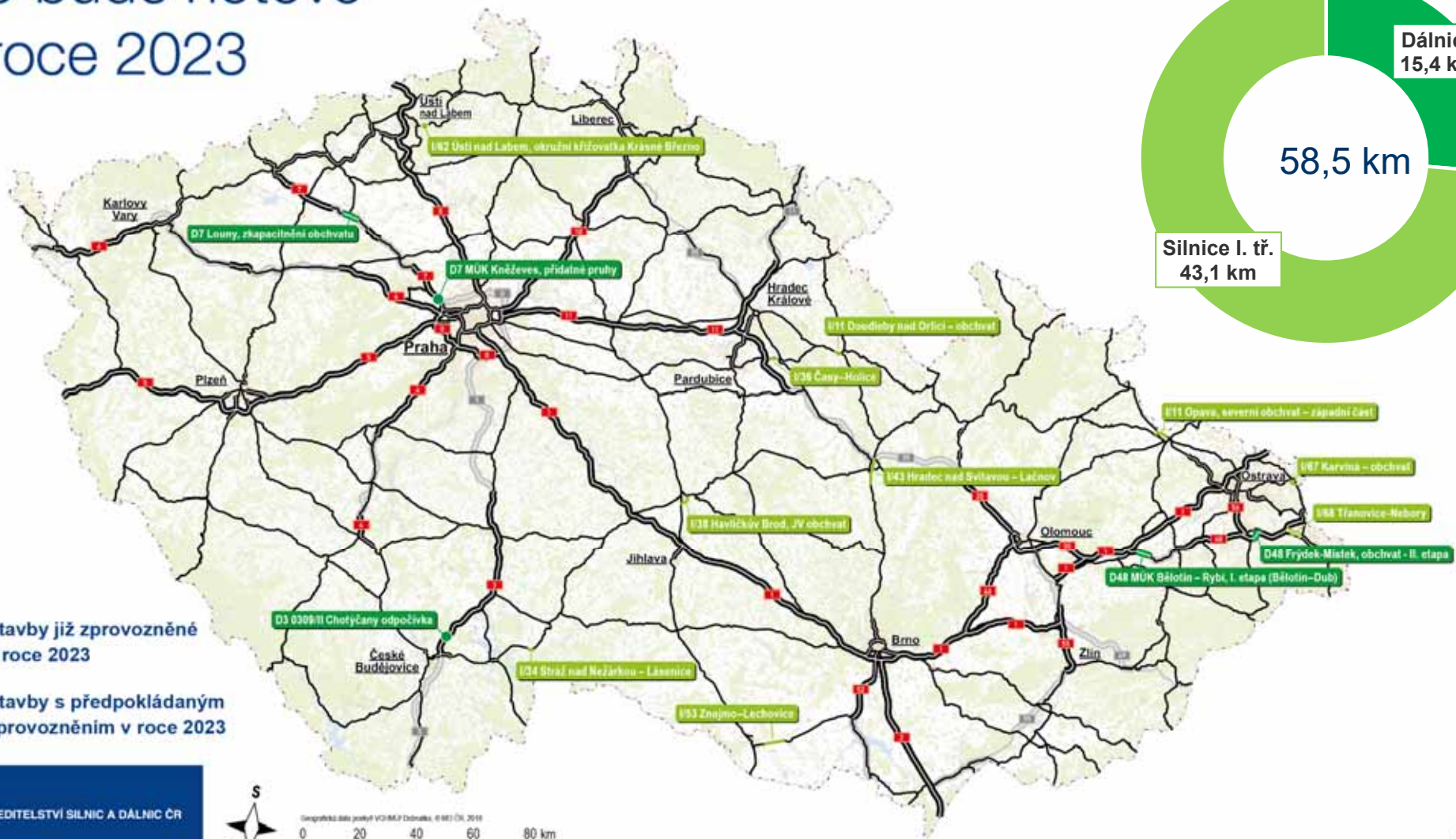
Started in 2023

Co bude zahájeno v roce 2023



Finish in 2023

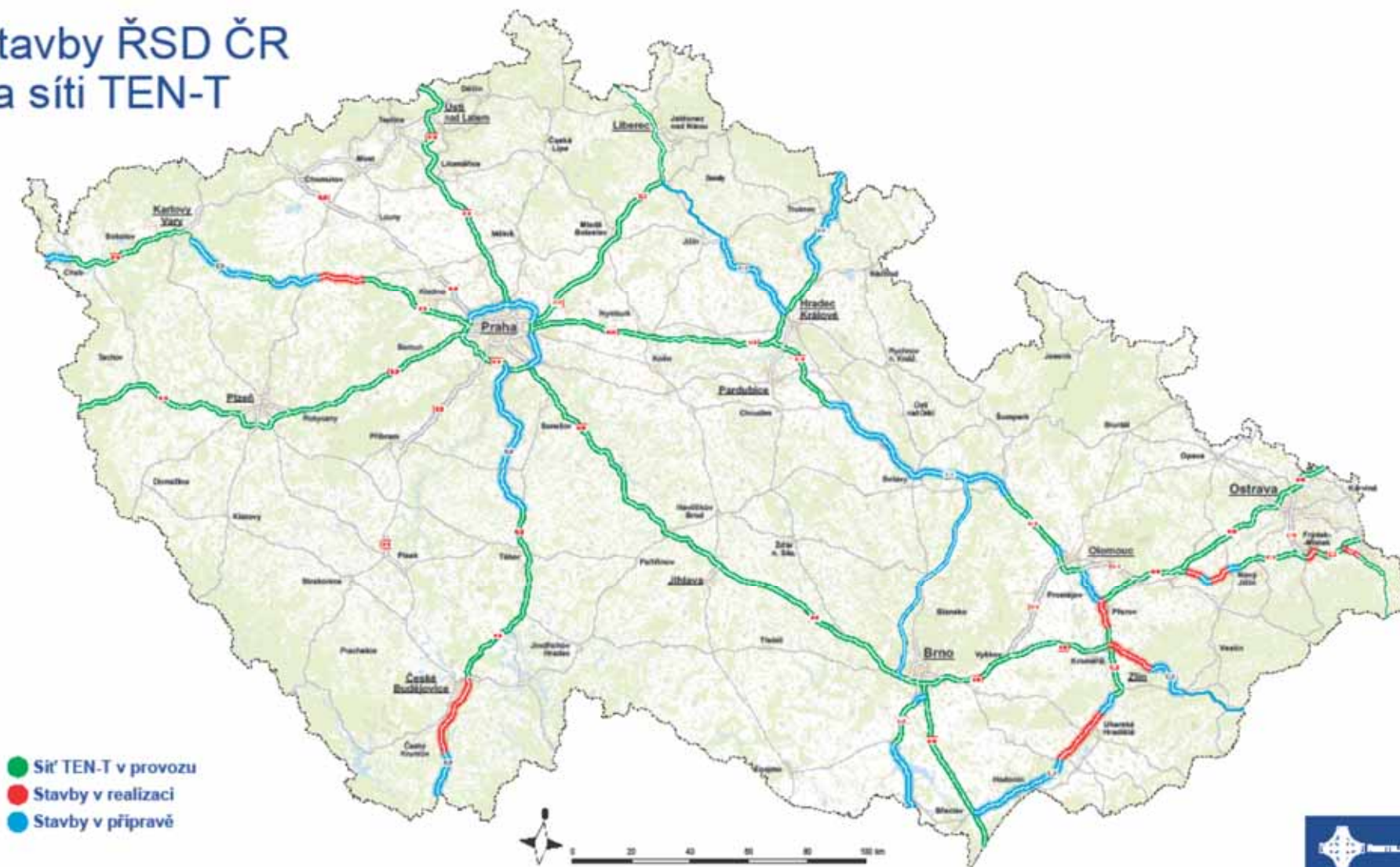
Co bude hotovo v roce 2023



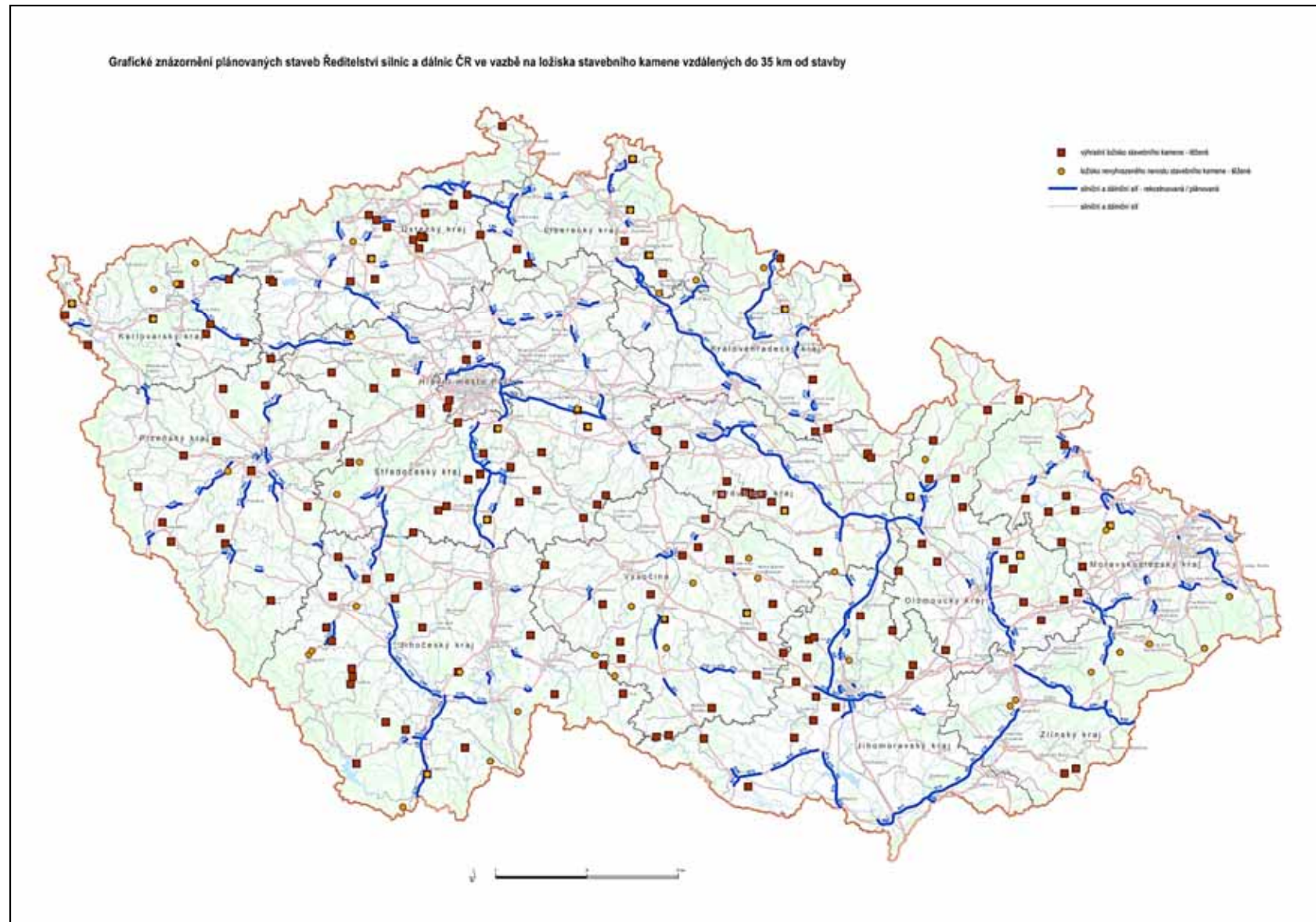
- S D** Stavby již zprovozněné v roce 2023
- S D** Stavby s předpokládaným zprovozněním v roce 2023

TEN-T Network

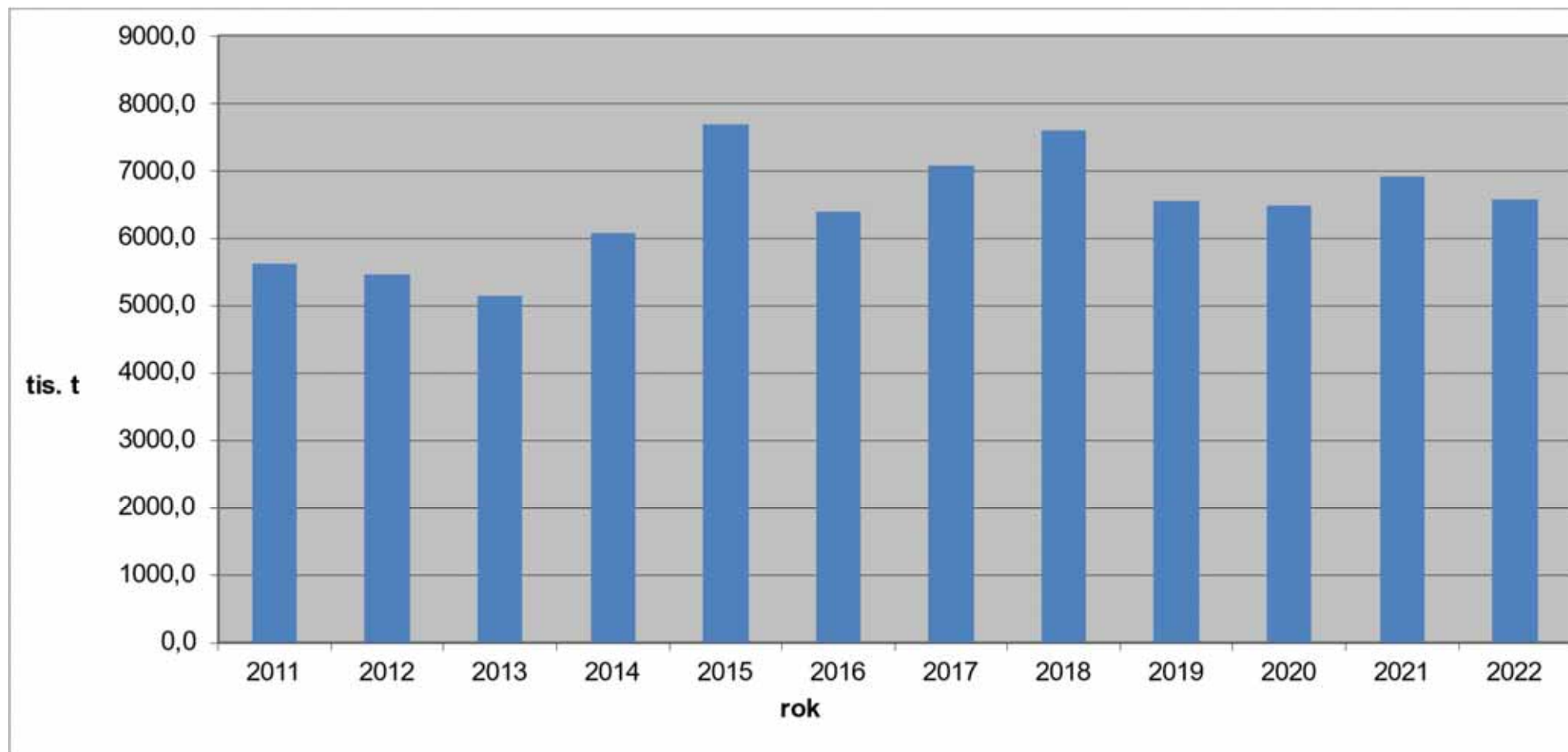
Stavby ŘSD ČR na síti TEN-T



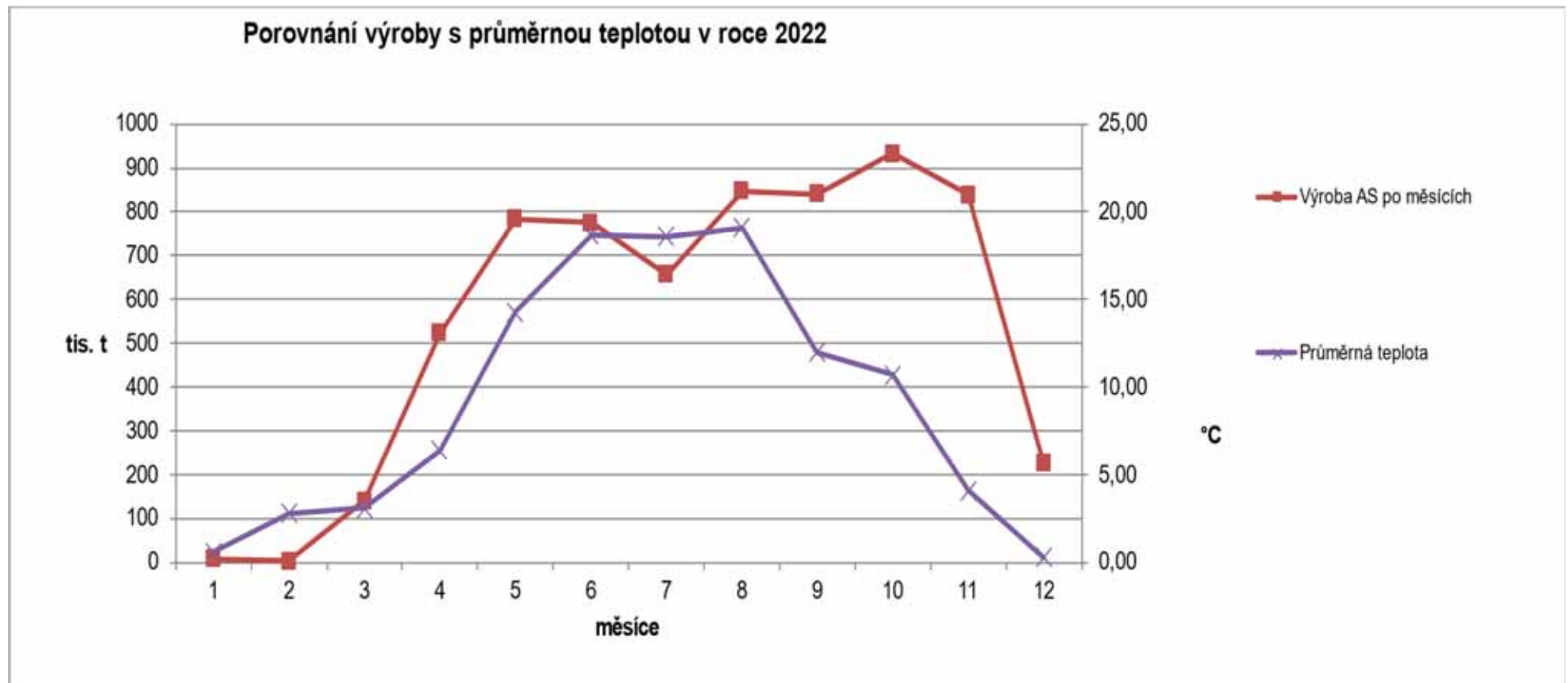
Plan for road construction till the year 2026 and sources of aggregate



Production of asphalt mixtures in Czechia 2011-2022



Month Production – comparison with the temperature



DECREE number 130/2019 for reclaimed asphalt - Modified 2023

Decree specify criteria which compliance allows to classify

asphalt reclaimed from pavements „ZAS“

as by-product or the waste regime for this recovered asphalt may be terminated.

Z ... *znovuzískaná* = Reclaimed

A ... *asfaltová* = Asphalt

S ... *směs* = Mixture

asfaltová směs = asphalt mixture

znovuzískaná asfaltová směs = ZAS = *site-won asphalt*

DECREE number 130/2019 for reclaimed asphalt - Modified 2023

A good example is Czech Republic, which in 2019 published the public edict No. 130/2019 Col. In this, it is stated that, if the owner of the road is able to declare that the asphalt layers to be milled or deconstructed are not hazardous (e.g. by identifying the PAH content), the extracted material can automatically be declared as a “by-product”. In addition, a declaration is required, stating that the material will be treated in a mixing plant or by a recycling company with the purpose of using it as a by-product. It is not required that all the material is used at once or on the same road. Instead, it can be stockpiled and used over the following years, as necessary. Product Standards like EN 13108-8 and EN 13242 apply in order to turn the site-won asphalt into reclaimed asphalt for re-use into asphalt mixtures or recycled as aggregate for other applications



Recommendations for Road Authorities to achieve circular economy goals through the maintenance, re-use and recycling of asphalt



**Table 1: Quality classes
by total content of polyaromatic hydrocarbons present**

Total content of the parameter	Unit	Quality class			
		ZAS-T1	ZAS-T2	ZAS-T3*	ZAS-T4*
The total content of polyaromatic hydrocarbons (PAH)	mg/kg dry	≤ 12	$12 < x \leq 25$	$25 < x \leq 300$	> 300

*If the benzo(a)pyrene content is equal to or greater than 50 mg.kg^{-1} , it is hazardous waste classified according to the European Waste Catalogue as

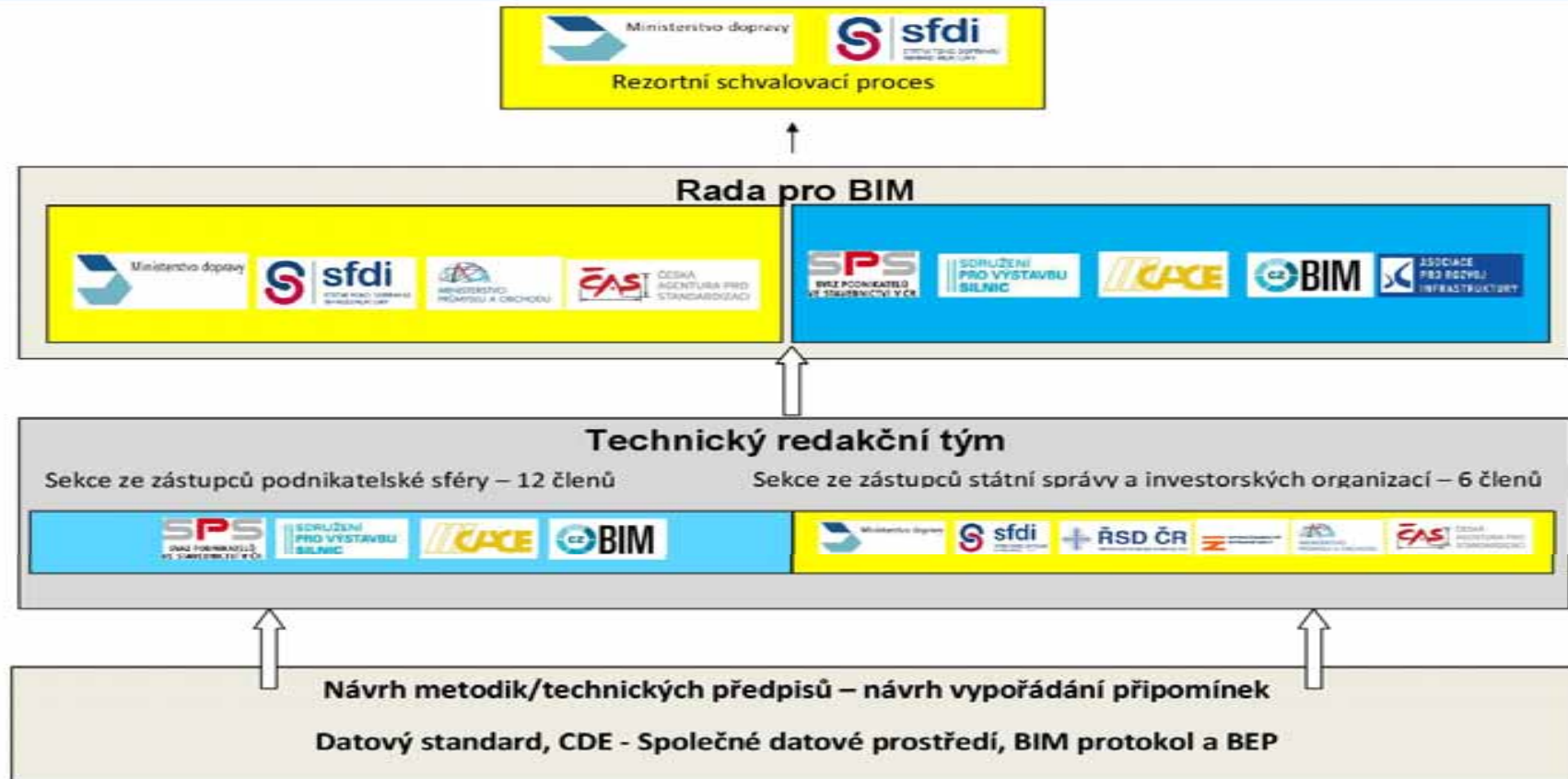
EWC code 17 03 01* Bituminous mixtures containing coal tar.

BIM implementation

BIM KONCEPCE
2023

Structure for approving BIM documents

Spolupráce veřejného a soukromého sektoru – Rada pro BIM a TRT



**BIM should be mandatory for over – limit public contracts from 7/2023
Was postponed to 2024**

New standards for construction of asphalt roads – from 2023

Content of RAP - not modified bitumen

ČSN 73 6121 – from February 2019

From April 2023

Wearing course		Bound course		Base course	
Type of mixture	RAP (%)	Type of mixture	RAP (%)	Druh směsi	RAP (%)
ACO 8	25 35	ACL 16 +	30 50	ACP 16 S	50 60
ACO 8 CH	25 35	ACL 16	40 50	ACP 16 +	60 60
ACO 11 +	15 30	ACL 22 +	30 50	ACP 22 S	50 60
ACO 11	25 35	ACL 22	40 50	ACP 22 +	60 60
ACO 16 +	15 30				
ACO 16	25 35				

In Czechia there are

- 11 asphalt coating plants with parallel drum,
- 5 asphalt coating plants using „recycling with ring“,
- lots of plants fit for recycling using „cold way“





Združenje asfalterjev Slovenije
Slovenian Asphalt Pavement Association



3. workshop

PAVEMENT DESIGN

*unique meeting of European experts
on Pavement design*

Term: 15–16 November 2018

Place: South Moravia



Participants of Pavement design workshop in Lednice 2018



New TP (Technical requirement) Ministry of the transport

TP 170 Pavement design of the roads

Technická norma pro návrh vozovky a pozemních komunikací v ČR, schválená Ministerstvem dopravy České republiky. Pro účely a účelů, jaké jsou uvedeny v předmluvě.

MINISTERSTVO DOPRAVY ČESKÉ REPUBLIKY

TP 170

NAVRHOVÁNÍ VOZOVEK POZEMNÍCH KOMUNIKACÍ

Schváleno MD ČR OPK pod č.j. 517/04-120-RS/1
ze dne 23.11.2004 s účinností od 1. prosince 2004
Současně se ruší a nahrazují v celém rozsahu:
– TP 77, schválené MD ČR pod č.j. 23977/95-230 ze dne 1.12.1995
– TP 78, schválené MD ČR pod č.j. 23978/95-230 ze dne 1.12.1995
– TP 122, schválené MD ČR pod č.j. 23842/99-120 ze dne 4.6.1999

Vysoké učení technické v Brně, fakulta stavební
České vysoké učení technické v Praze, fakulta stavební
Stavby silnic a železnic, a.s.
ODS – Dopravní stavby Ostrava, a.s.

listopad 2004

D0-A

TDZ	S			I			II			III		
<i>N_{cd}</i> (mil. NN)	68			22			11			4.8		

D0-A-1												
SMA, ACL, ACP, MZK, ŠDA	PI			PII			PIII			Podloží		
	100	40			40			40			40	
200	80			80			80			70		
300	180 ⁶⁾			140 ⁶⁾			120 ⁶⁾			90		
400	150			150			150			150		
500	150			150			150			150		
600	250			250			250			250		
700	45			45			45			45		
Ha	300	300	300	260	260	260	230	230	230	200	200	200
Hv	500	600	700	460	560	660	430	530	630	400	500	600

D0-A-2												
SMA, ACL, VMT, MZK, ŠDA	PI			PII			PIII			Podloží		
	100	40			40			40			40	
200	80			80			80			80		
300	160 ⁶⁾			120			100			100		
400	170			150			150			150		
500	150			150			150			150		
600	250			250			250			250		
700	45			45			45			45		
Ha	280	280	280	240	240	240	220	220	220	200	200	200
Hv	480	600	700	440	540	640	420	520	620	400	500	600



Thanks for attention

www.sdruzeni-silnice.cz