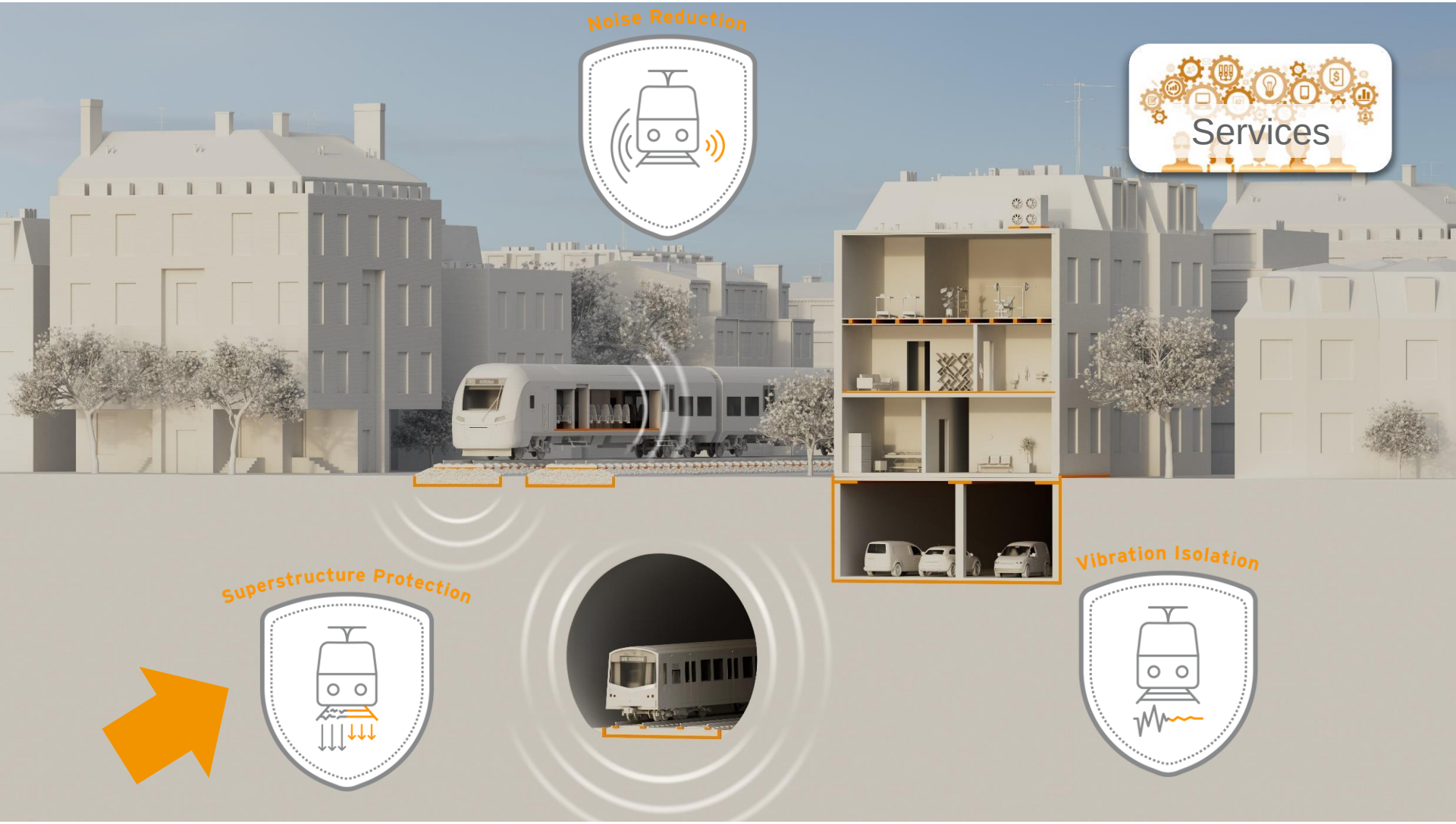
getzner
engineering a quiet future

Elastic Solutions for Railway Superstructures
PWI North East Section - March

February 2024, Andy Moore

Andy.Moore@Getzner.com

Core Competence
Vibration Isolation



Elastic Solutions For Railway Superstructure

Contents

- Under Sleeper Pads

- Under Ballast Mats

- Mass Spring System

Why Under Sleeper Pads?

Vibration Isolation

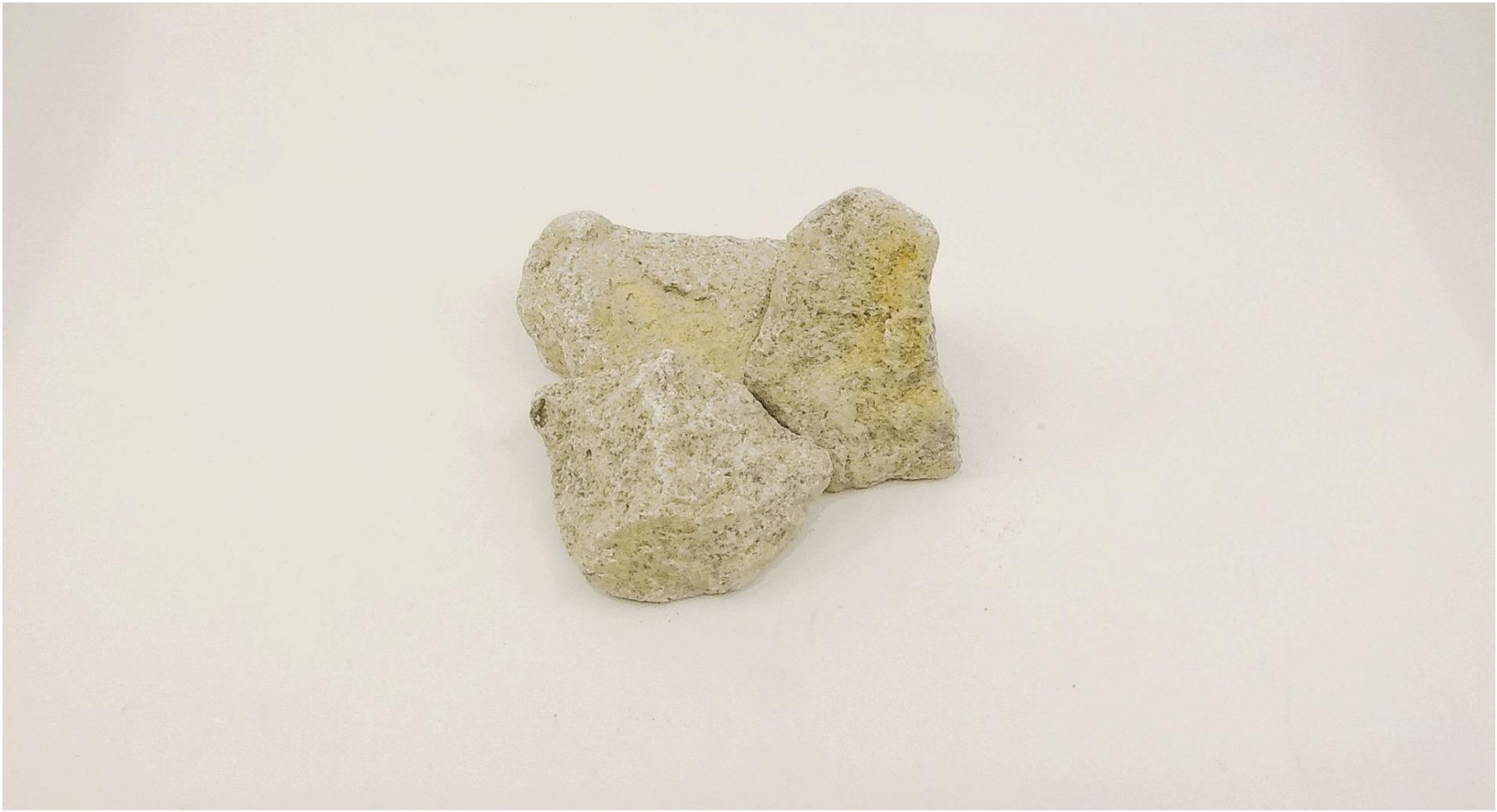
SLN sylodyn® by getzner

SLS sylomer® by getzner

Ballast Protection

SLB sylomer® by getzner

Ballast is the weakest component

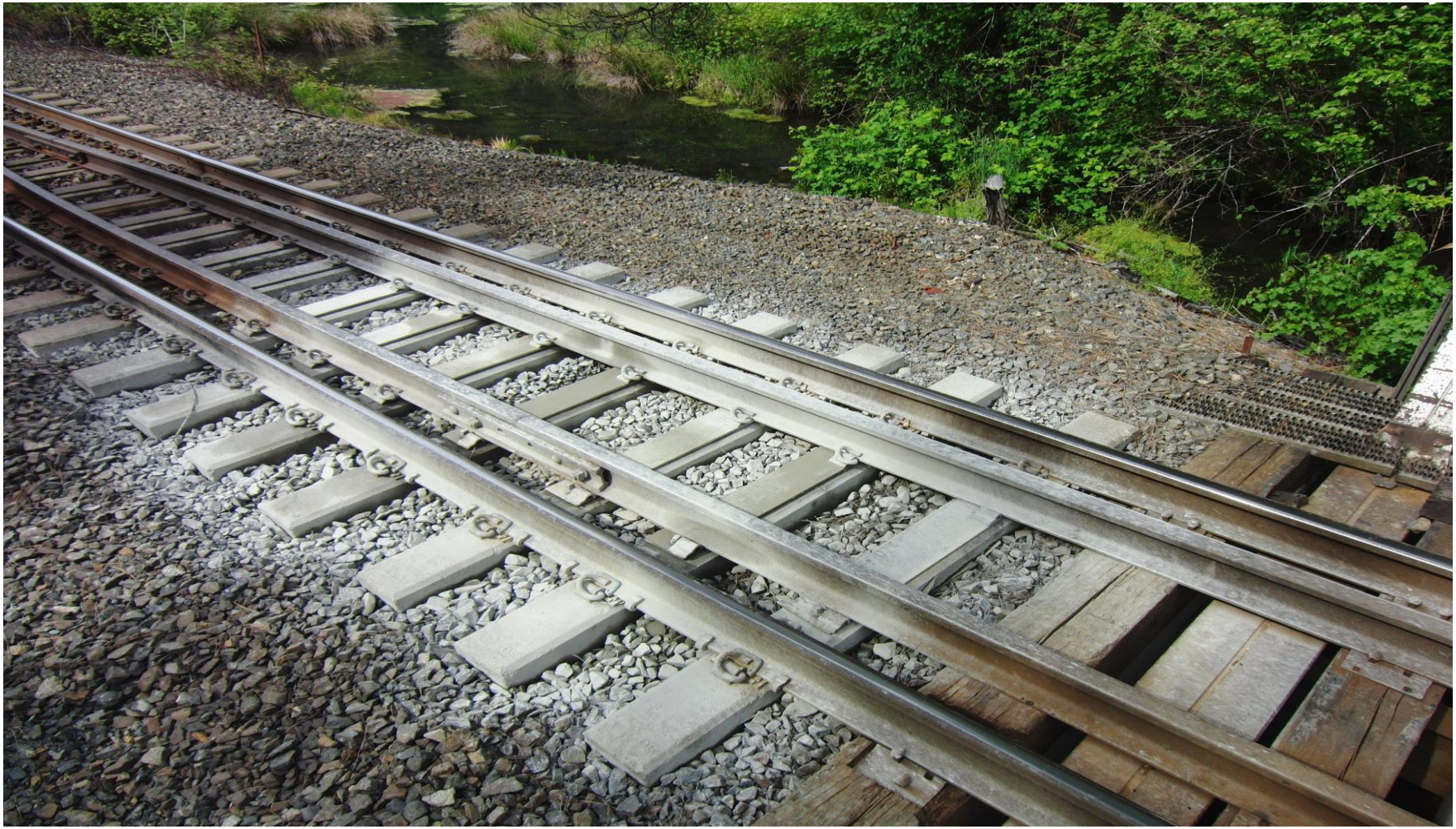


Ballast turns to dust!

Creating Voids Under The Sleepers

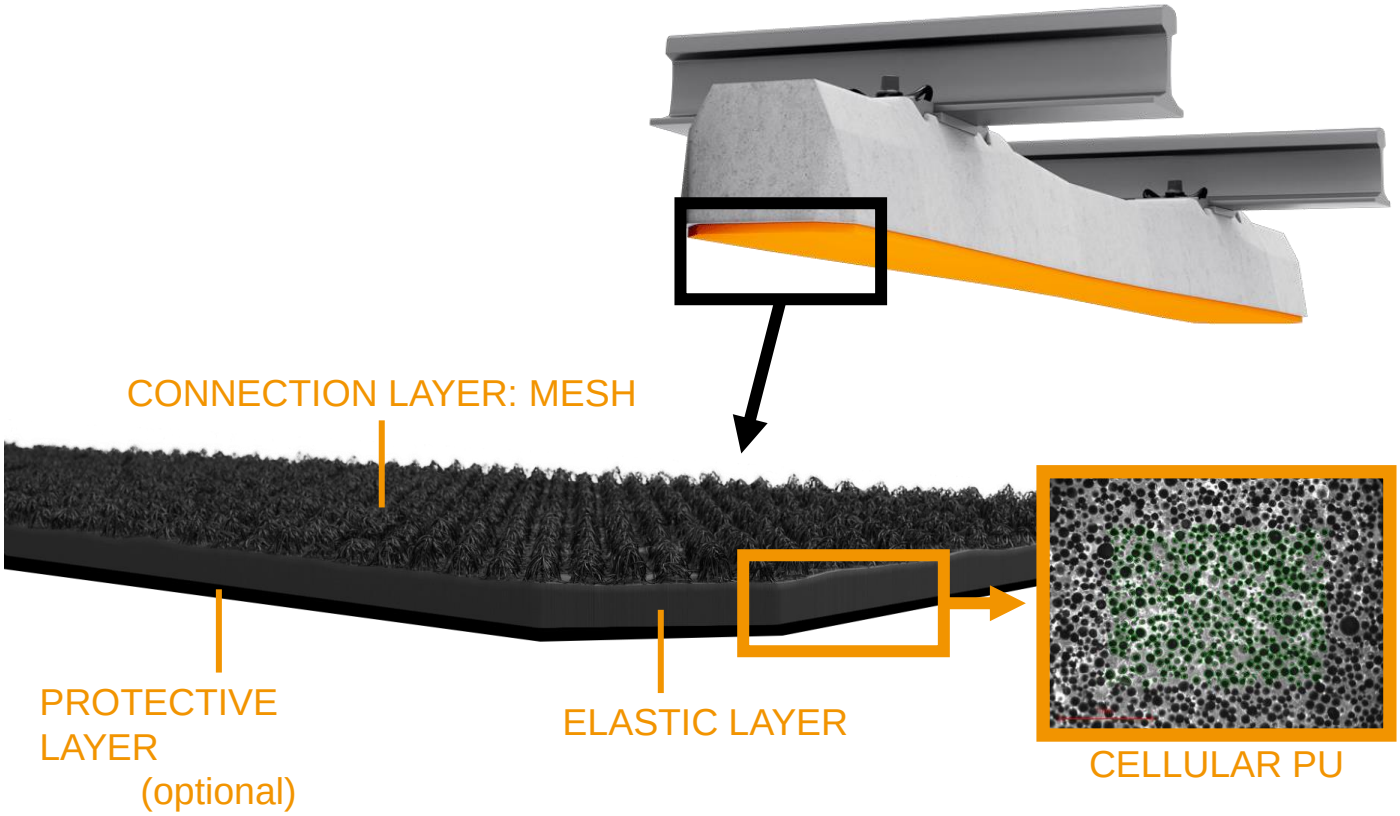
Sleepers Crack

- **White Spots**

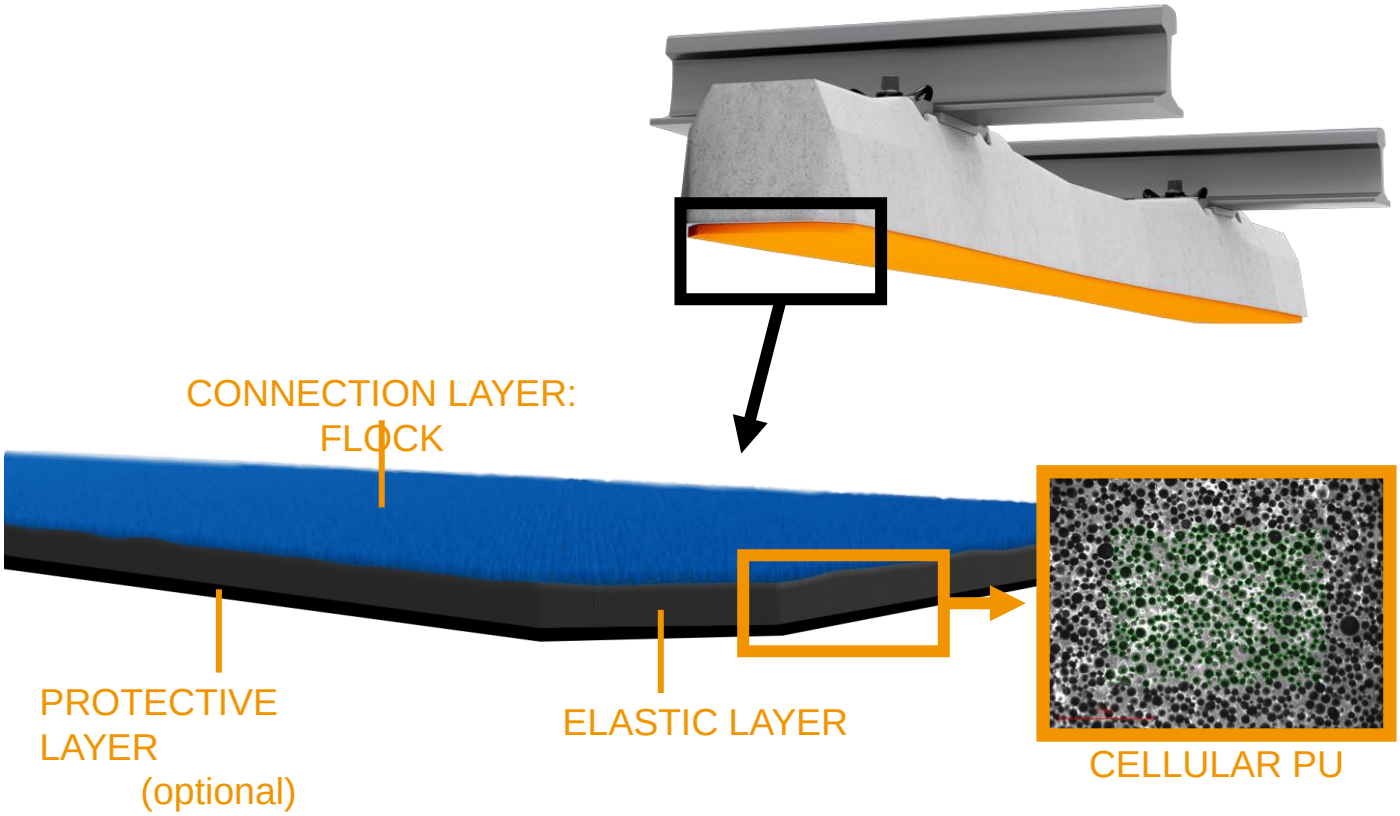


- **Poor Track Quality**

Elastic Solutions For Ballasted Track
Under Sleeper Pads



Elastic Solutions For Ballasted Track
Under Sleeper Pads

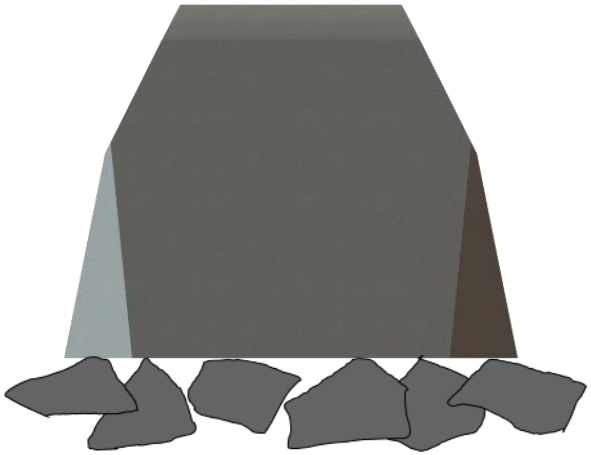


Assembly in the Sleeper Factory

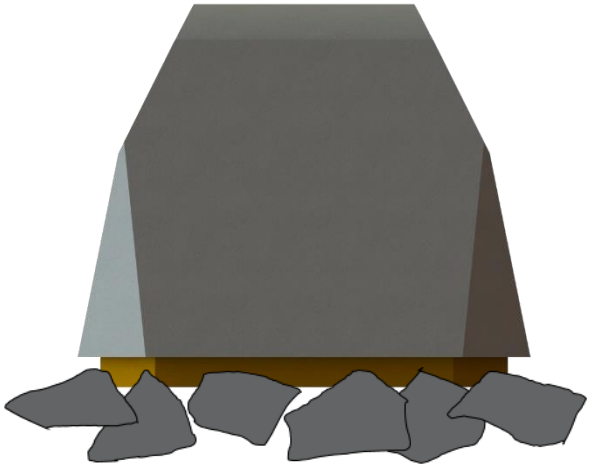
Assembly in the Sleeper Factory

Ballast Embeds

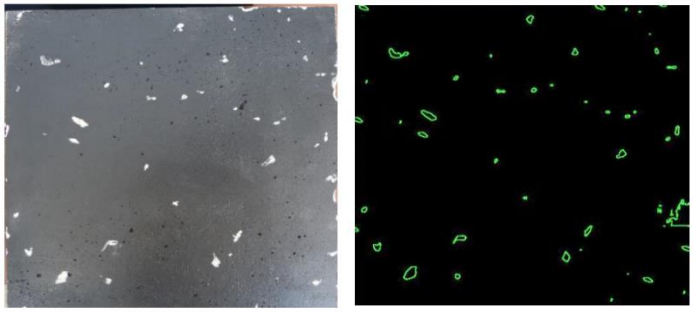
Elastic Solutions for Insulated Rail Joints
Unpadded vs. Padded Sleepers

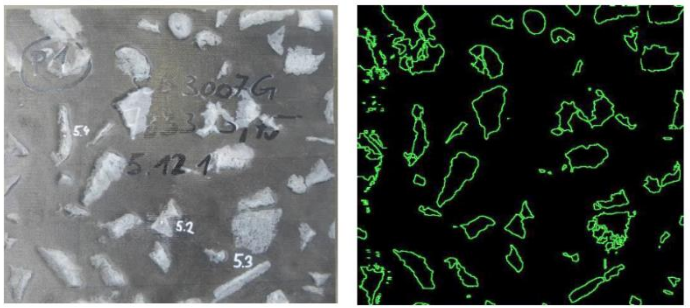


Contact Area: 3 - 5 %

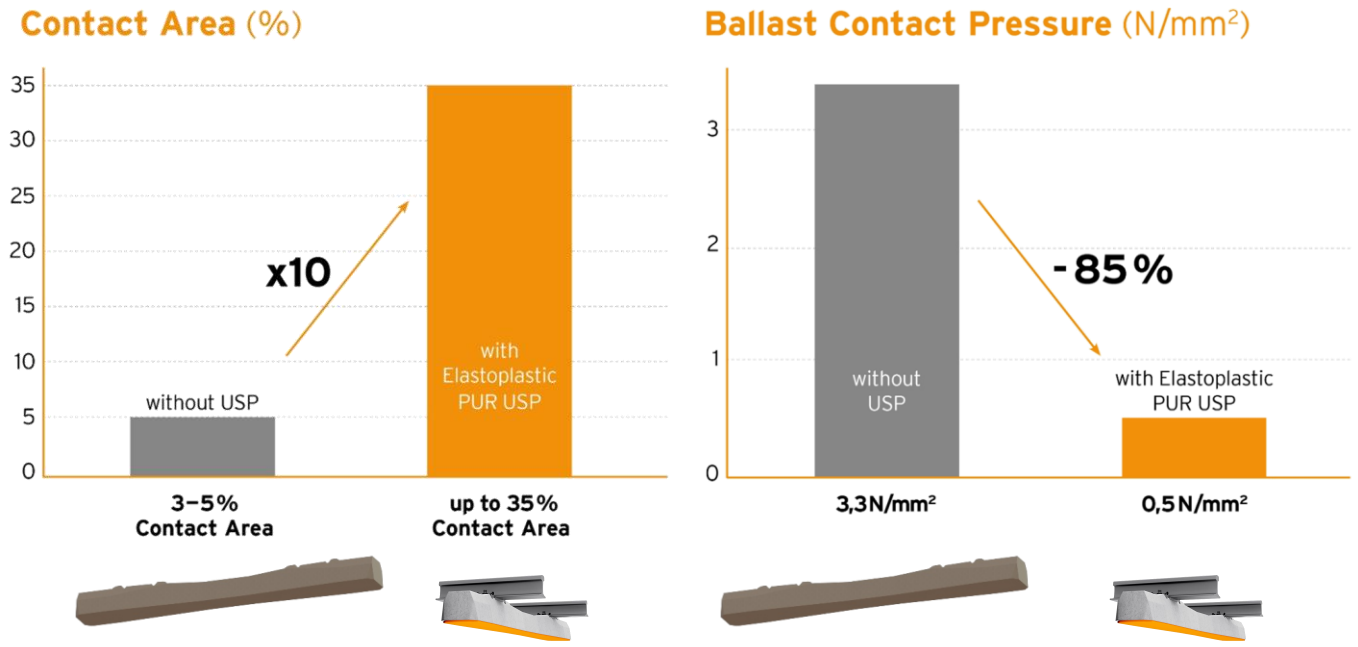


15 - 35 %



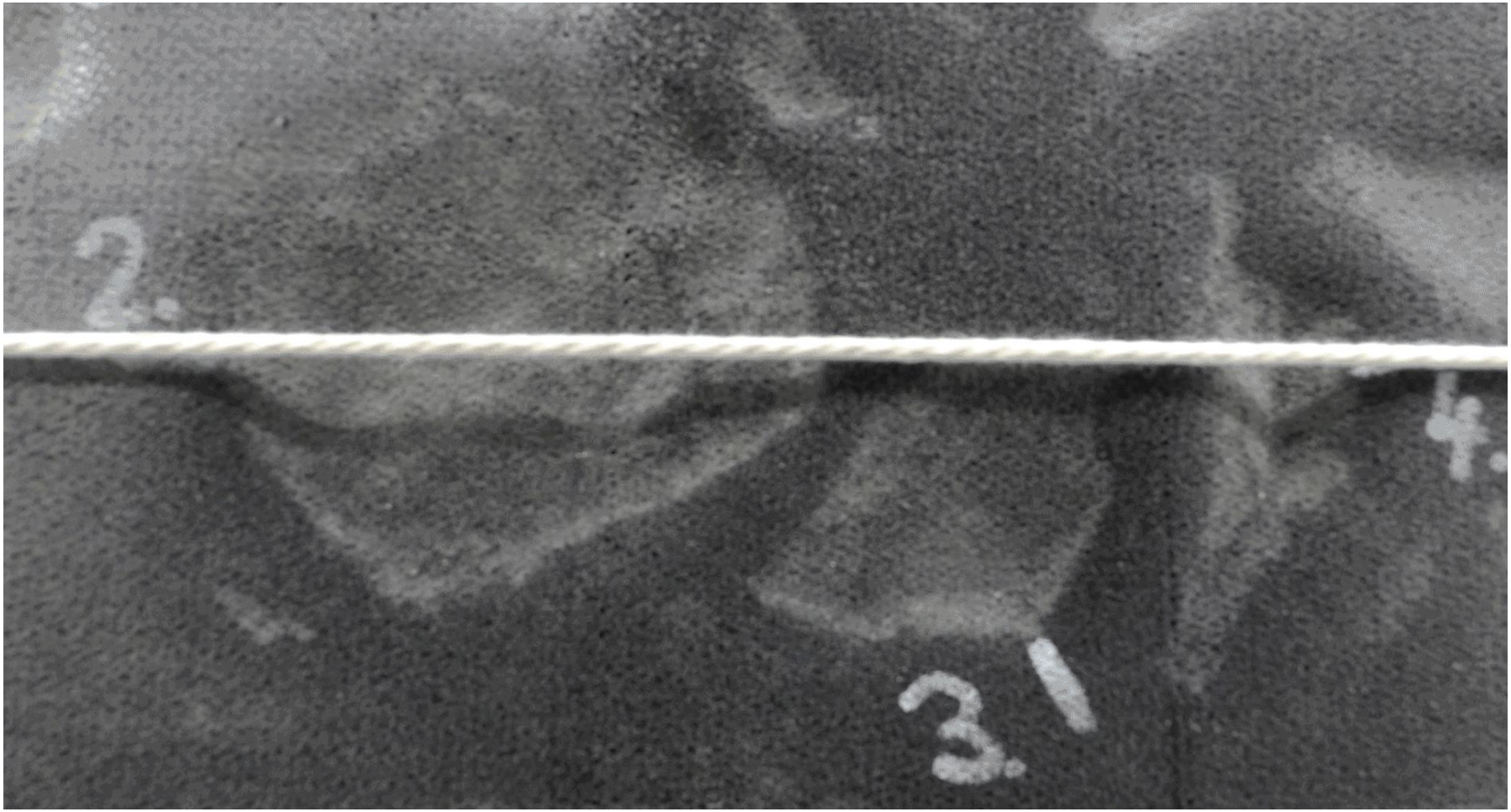


Elastic Solutions for Ballasted Track
Under Sleeper Pads



Ballast Protection for Your Superstructure
Contact Area Explained

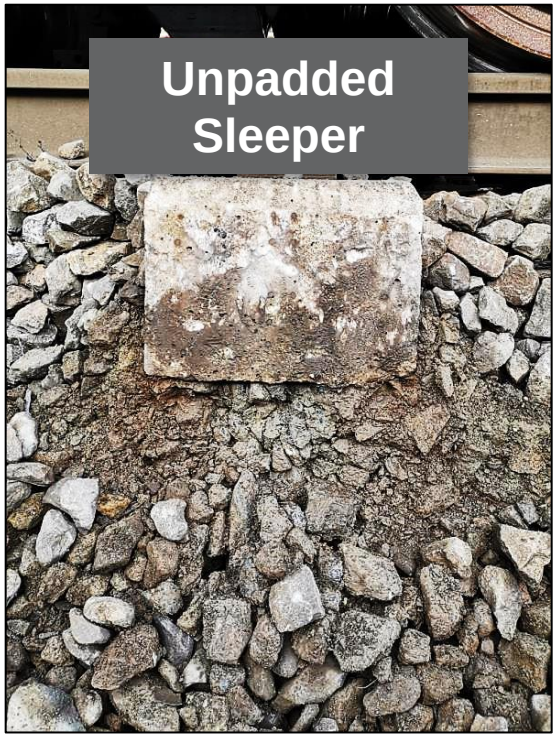
Elasto-plastic Behaviour

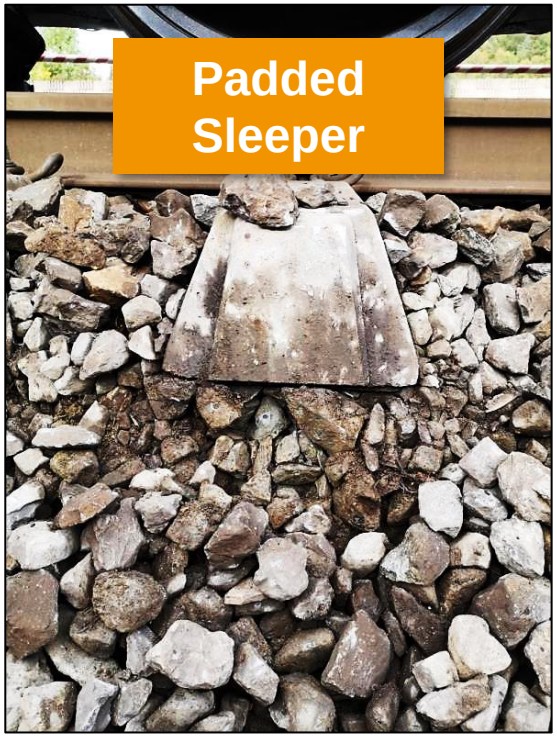


Elastic Solutions for Ballasted Track
Under Sleeper Pads

radius = 280m, 100 MGT

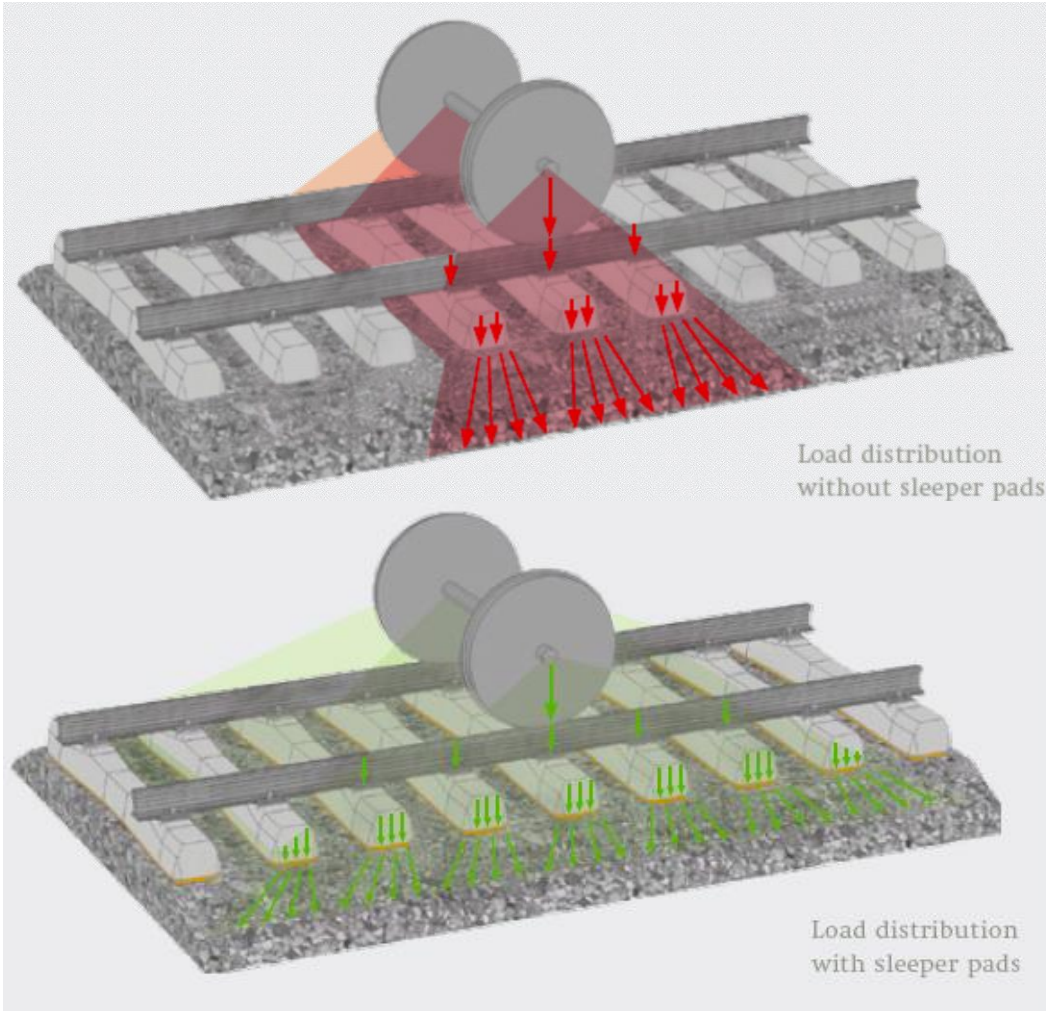
State Of The Ballast
Unpadded Vs. Padded Sleepers





network of ÖBB, Leoben

Elastic Solutions for Ballasted Track
Under Sleeper Pads

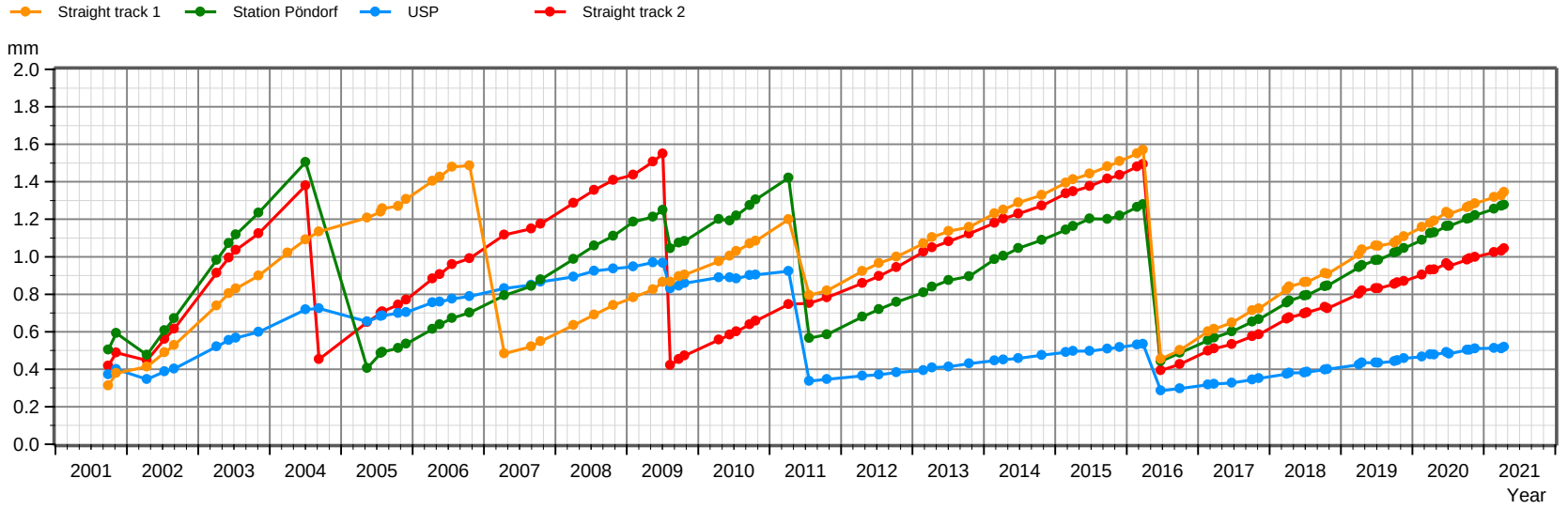


UNPADDED SLEEPERS
few load bearing „shoulders“

PADDED SLEEPERS
more load bearing „shoulders“

Elastic Solutions For Ballasted Track

Under Sleeper Pads: General



Deterioration Rate (2011-2016)	
Straight track 1	0,16 mm/year
Station Pöndorf	0,16 mm/year
USP	0,04 mm/year
Straight track 2	0,16 mm/year

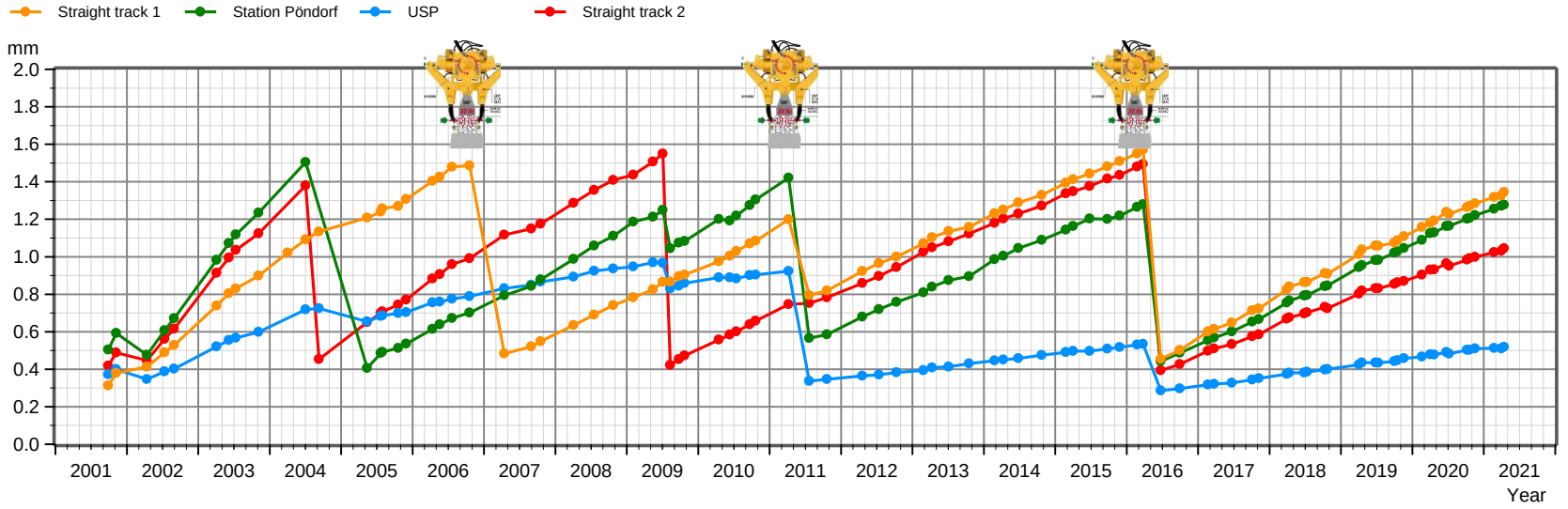
Deterioration Rate (2016-2021)	
Straight track 1	0,18 mm/year
Station Pöndorf	0,18 mm/year
USP	0,05 mm/year
Straight track 2	0,13 mm/year

Straight track 1	km 274.900 – km 275.500
Station Pöndorf	km 275,500 – km 276,100
USP	km 276,100 – km 276,950
Straight track 2	km 276,950 – km 277,800

main-line network of ÖBB, Austria
225 kN axle load, 20 MGT/year

Elastic Solutions For Ballasted Track

Under Sleeper Pads: General



Deterioration Rate (2011-2016)	
Straight track 1	0,16 mm/year
Station Pöndorf	0,16 mm/year
USP	0,04 mm/year
Straight track 2	0,16 mm/year

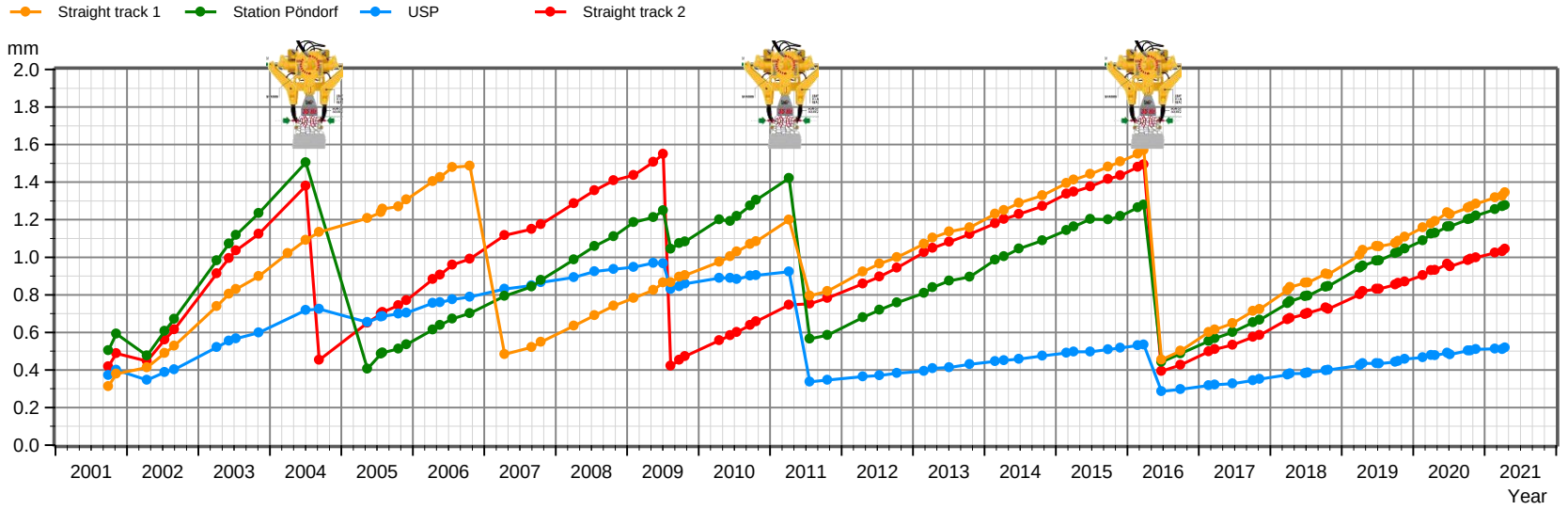
Deterioration Rate (2016-2021)	
Straight track 1	0,18 mm/year
Station Pöndorf	0,18 mm/year
USP	0,05 mm/year
Straight track 2	0,13 mm/year

Straight track 1	km 274.900 – km 275.500
Station Pöndorf	km 275,500 – km 276,100
USP	km 276,100 – km 276,950
Straight track 2	km 276,950 – km 277,800

main-line network of ÖBB, Austria
225 kN axle load, 20 MGT/year

Elastic Solutions For Ballasted Track

Under Sleeper Pads: General



Deterioration Rate (2011-2016)	
Straight track 1	0,16 mm/year
Station Pöndorf	0,16 mm/year
USP	0,04 mm/year
Straight track 2	0,16 mm/year

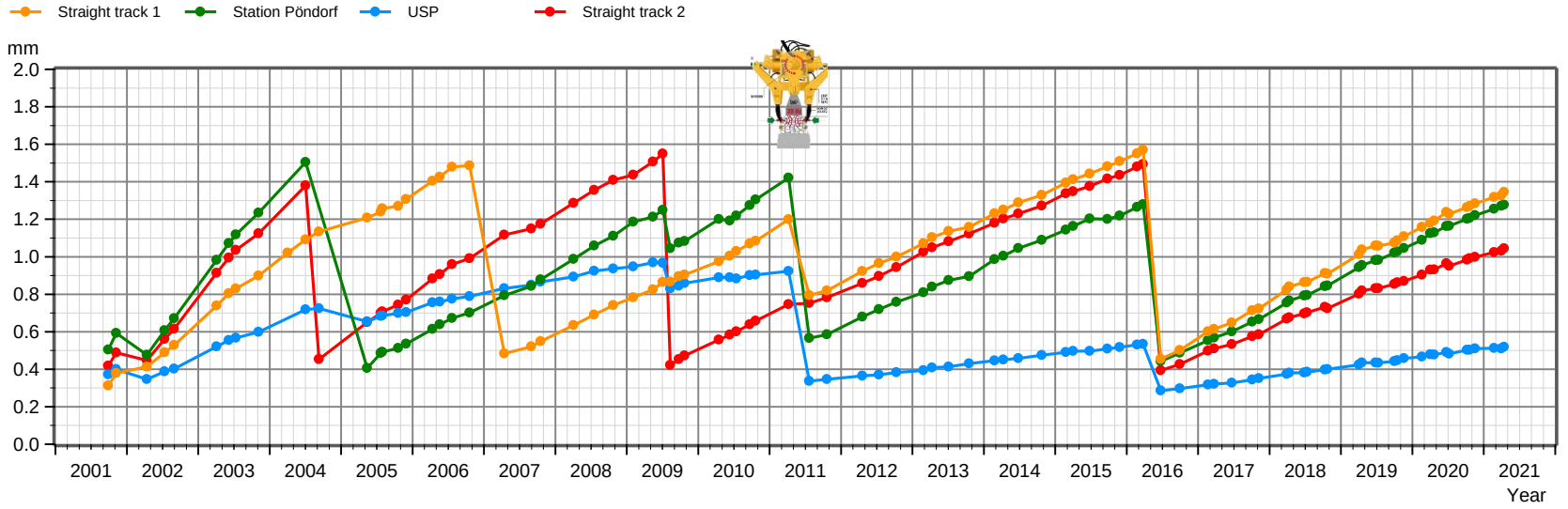
Deterioration Rate (2016-2021)	
Straight track 1	0,18 mm/year
Station Pöndorf	0,18 mm/year
USP	0,05 mm/year
Straight track 2	0,13 mm/year

Straight track 1	km 274.900 – km 275.500
Station Pöndorf	km 275,500 – km 276,100
USP	km 276,100 – km 276,950
Straight track 2	km 276,950 – km 277,800

main-line network of ÖBB, Austria
225 kN axle load, 20 MGT/year

Elastic Solutions For Ballasted Track

Under Sleeper Pads: General



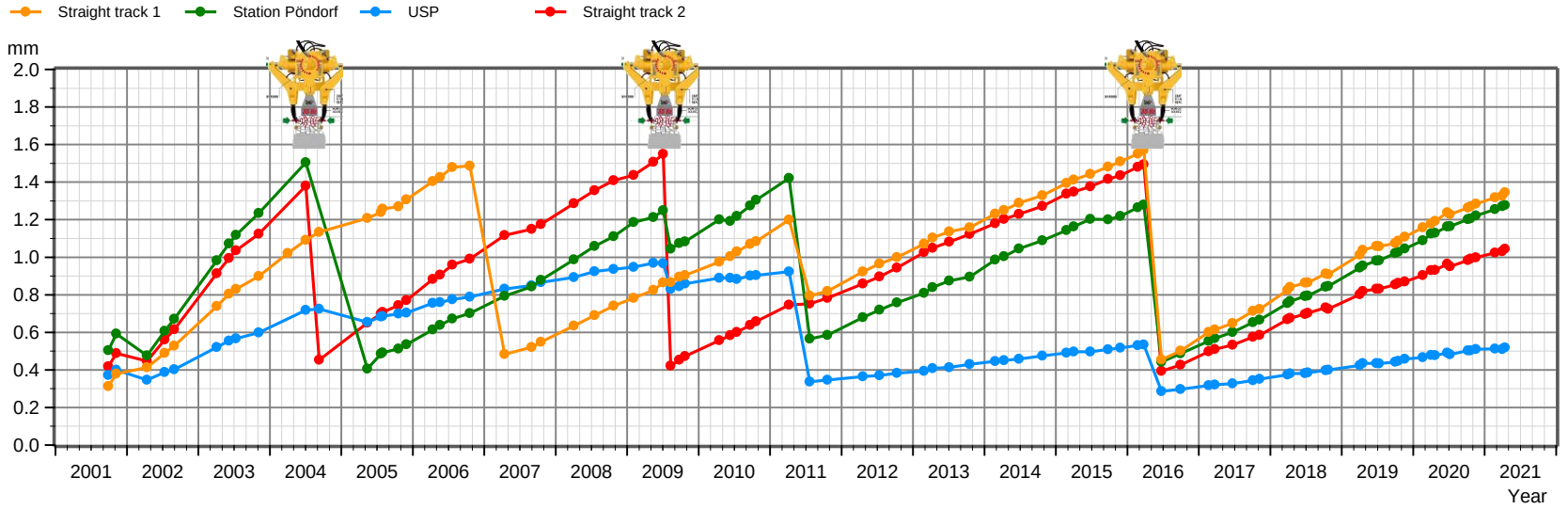
Deterioration Rate (2011-2016)	
Straight track 1	0,16 mm/year
Station Pöndorf	0,16 mm/year
USP	0,04 mm/year
Straight track 2	0,16 mm/year

Deterioration Rate (2016-2021)	
Straight track 1	0,18 mm/year
Station Pöndorf	0,18 mm/year
USP	0,05 mm/year
Straight track 2	0,13 mm/year

Straight track 1	km 274.900 – km 275.500
Station Pöndorf	km 275,500 – km 276,100
USP	km 276,100 – km 276,950
Straight track 2	km 276,950 – km 277,800

main-line network of ÖBB, Austria
225 kN axle load, 20 MGT/year

Elastic Solutions For Ballasted Track
Under Sleeper Pads: General



Deterioration Rate (2011-2016)	
Straight track 1	0,16 mm/year
Station Pöndorf	0,16 mm/year
USP	0,04 mm/year
Straight track 2	0,16 mm/year

Deterioration Rate (2016-2021)	
Straight track 1	0,18 mm/year
Station Pöndorf	0,18 mm/year
USP	0,05 mm/year
Straight track 2	0,13 mm/year

Straight track 1	km 274.900 – km 275.500
Station Pöndorf	km 275,500 – km 276,100
USP	km 276,100 – km 276,950
Straight track 2	km 276,950 – km 277,800

main-line network of ÖBB, Austria
225 kN axle load, 20 MGT/year

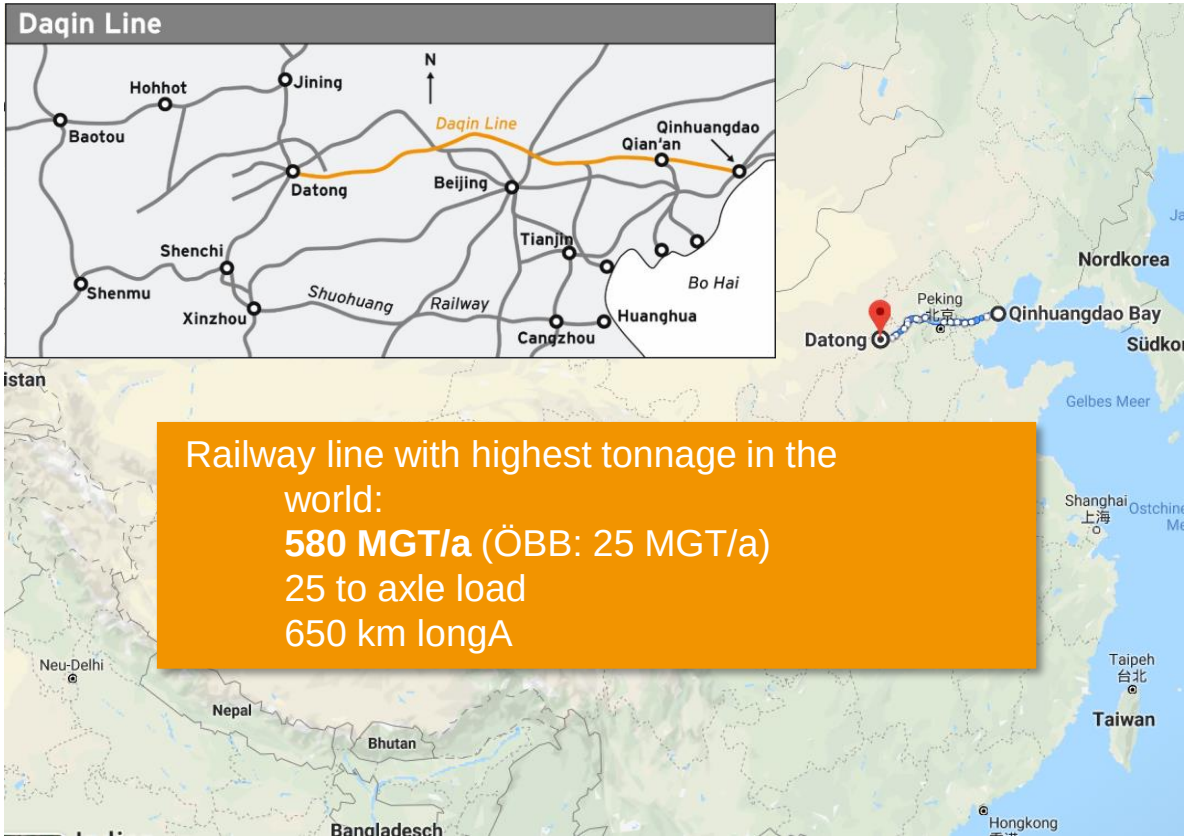
USP - Under Sleeper Pads
Project/References

LCC - Strategy

Evaluation of more than 1500 crossections in Austria with more than 20 MGT and equipped with Getzner Under Sleeper pad type SLB 3007 G show an incraese of the tamping intervalls by a factor of 2,75.


USP Reference:
DaQin Coal Line China

Elastic Solutions for Ballasted Track
Under Sleeper Pads: Reference DaQin Coal Line



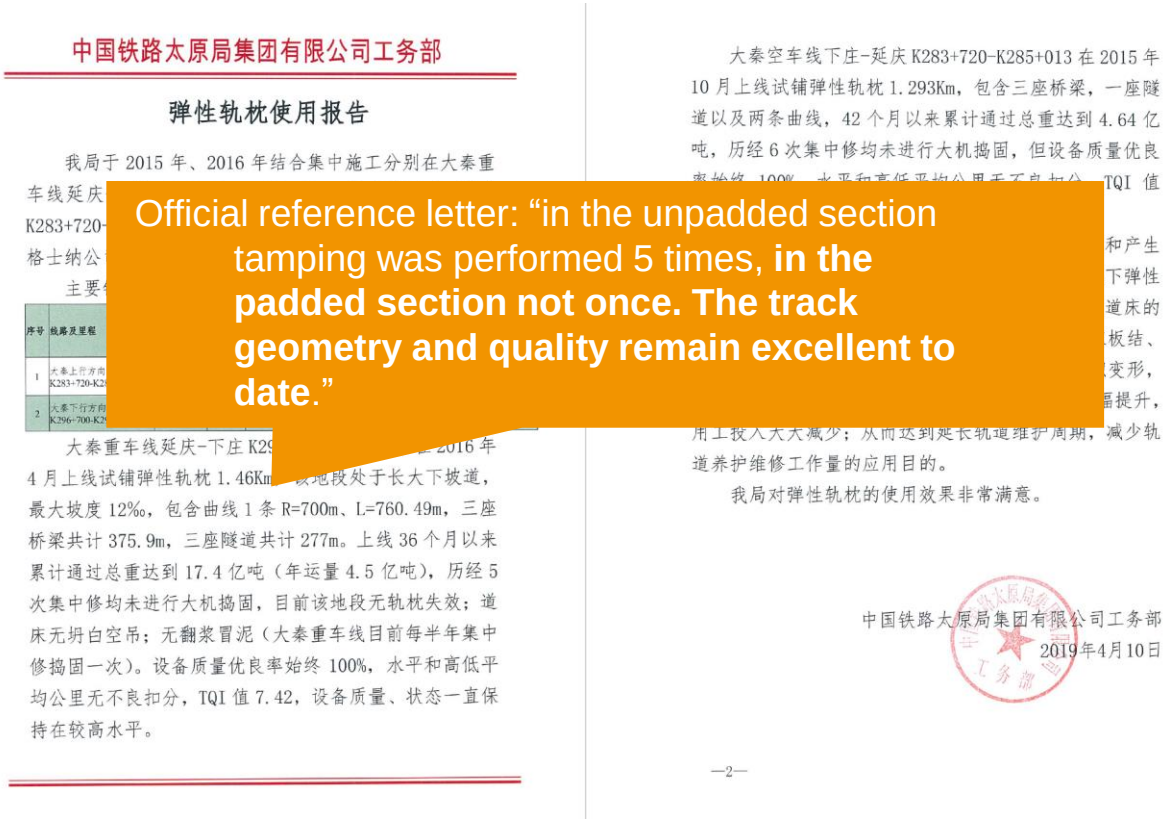
Railway line with highest tonnage in the world:
580 MGT/a (ÖBB: 25 MGT/a)
25 to axle load
650 km longA

Elastic Solutions for Ballasted Track
Under Sleeper Pads: Reference DaQin Coal Line

April 2016 – August 2018:

1 Billion Gross Tonnes

Elastic Solutions for Ballasted Track
Under Sleeper Pads: Reference DaQin Coal Line



中国铁路太原局集团有限公司工务部

弹性轨枕使用报告

我局于 2015 年、2016 年结合集中施工分别在大秦重车线延庆 K283+720- 格士纳公 主要

序号	线路及里程
1	大秦上行方向 K283+720-K2
2	大秦下行方向 K296+700-K2

大秦重车线延庆-下庄 K29 2016 年 4 月上线试铺弹性轨枕 1.46Km 该地段处于长大下坡道，最大坡度 12‰，包含曲线 1 条 R=700m、L=760.49m，三座桥梁共计 375.9m，三座隧道共计 277m。上线 36 个月以来累计通过总重达到 17.4 亿吨（年运量 4.5 亿吨），历经 5 次集中修均未进行大机捣固，目前该地段无轨枕失效；道床无坍白空吊；无翻浆冒泥（大秦重车线目前每半年集中修捣固一次）。设备质量优良率始终 100%，水平和高低平均公里无不良扣分，TQI 值 7.42，设备质量、状态一直保持在较高水平。

大秦空车线下庄-延庆 K283+720-K285+013 在 2015 年 10 月上线试铺弹性轨枕 1.293Km，包含三座桥梁，一座隧道以及两条曲线，42 个月以来累计通过总重达到 4.64 亿吨，历经 6 次集中修均未进行大机捣固，但设备质量优良率始终 100%，水平和高低平均公里无不良扣分，TQI 值

和产生
下弹性
道床的
板结、
变形，
提升，
用工投入大大减少；从而达到延长轨道维护周期，减少轨道养护维修工作量的应用目的。

我局对弹性轨枕的使用效果非常满意。

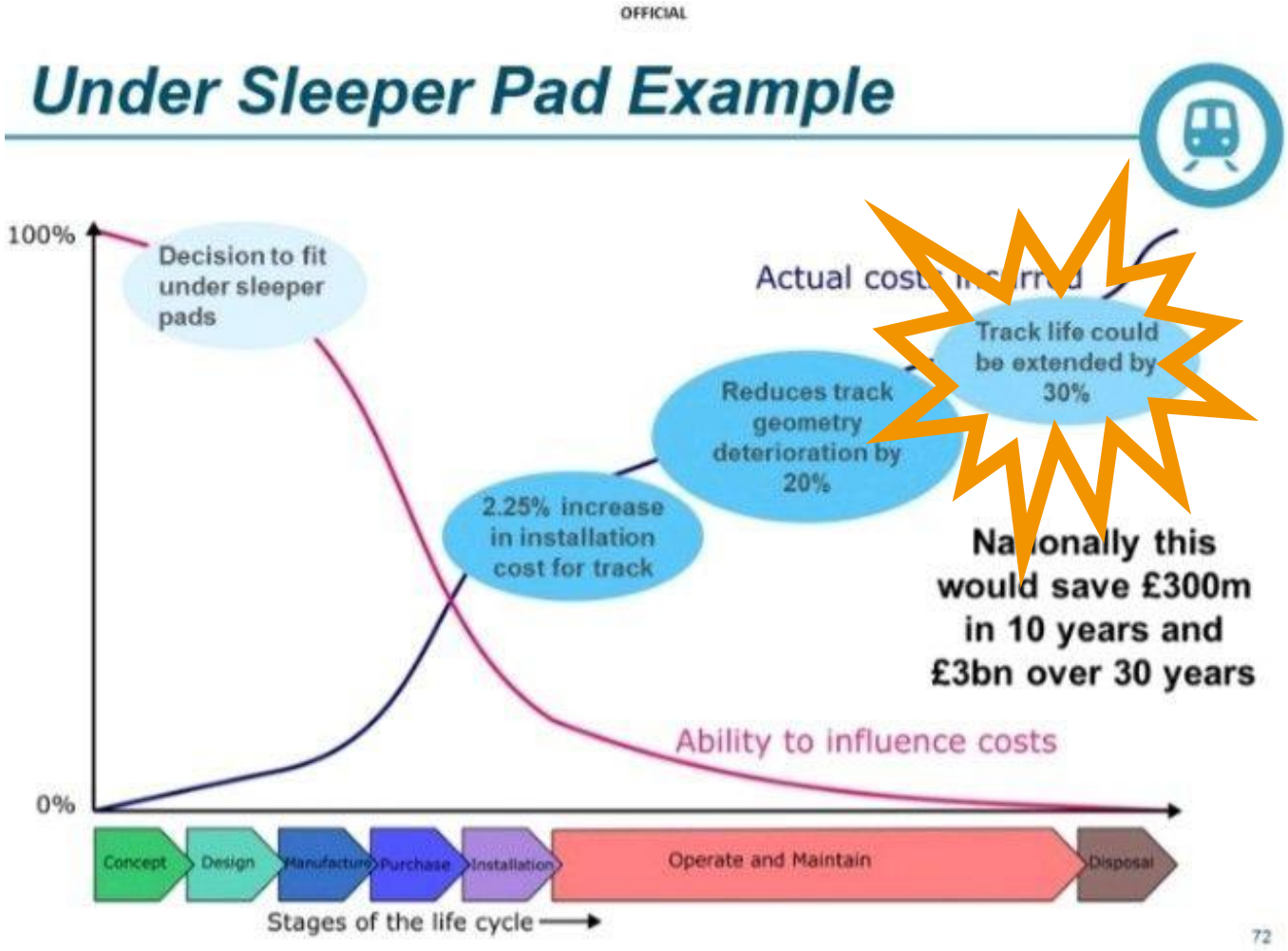
中国铁路太原局集团有限公司工务部

2019 年 4 月 10 日

—2—

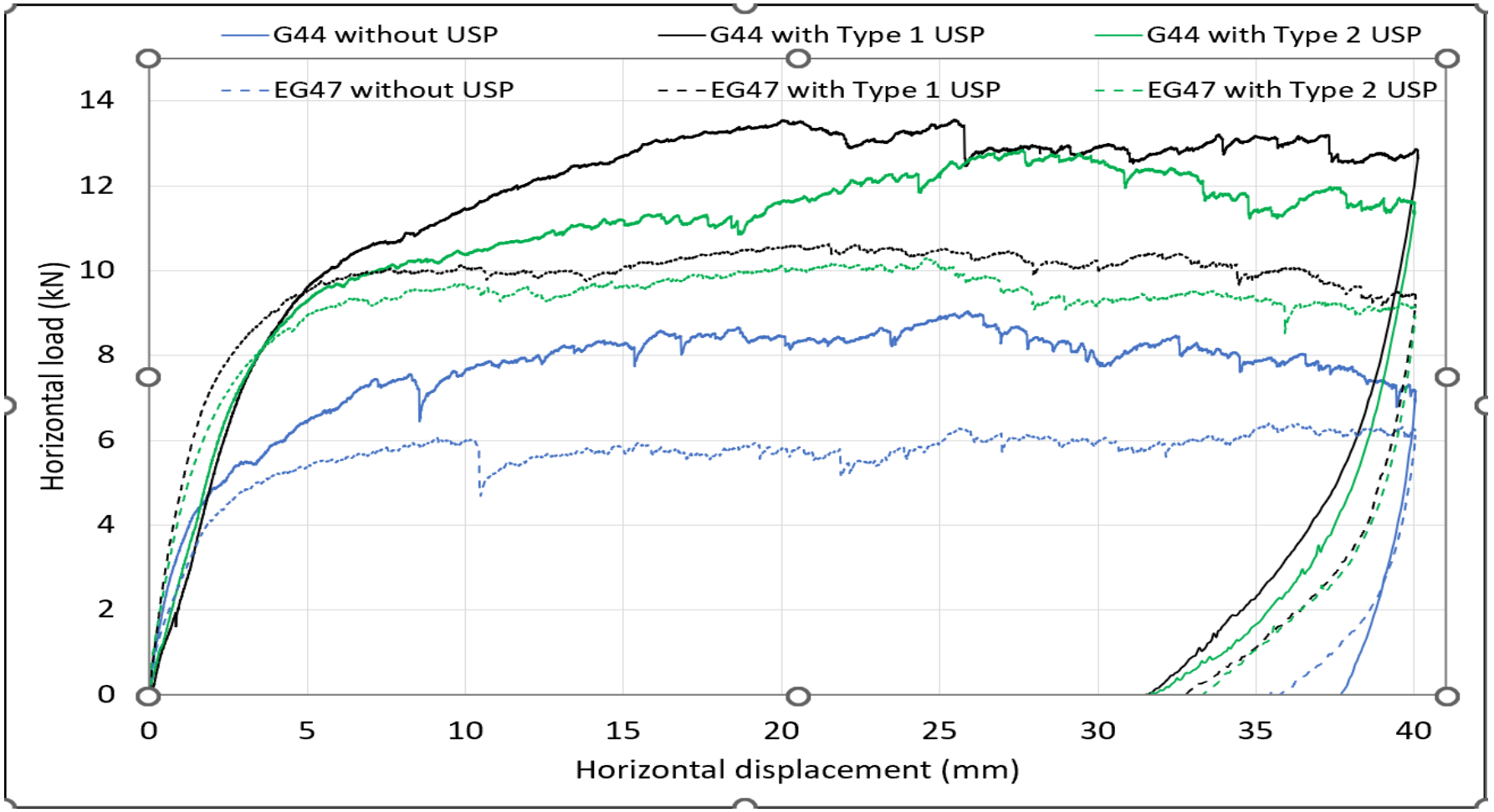
Official reference letter: “in the unpadded section tamping was performed 5 times, **in the padded section not once. The track geometry and quality remain excellent to date**.”

Network Rail

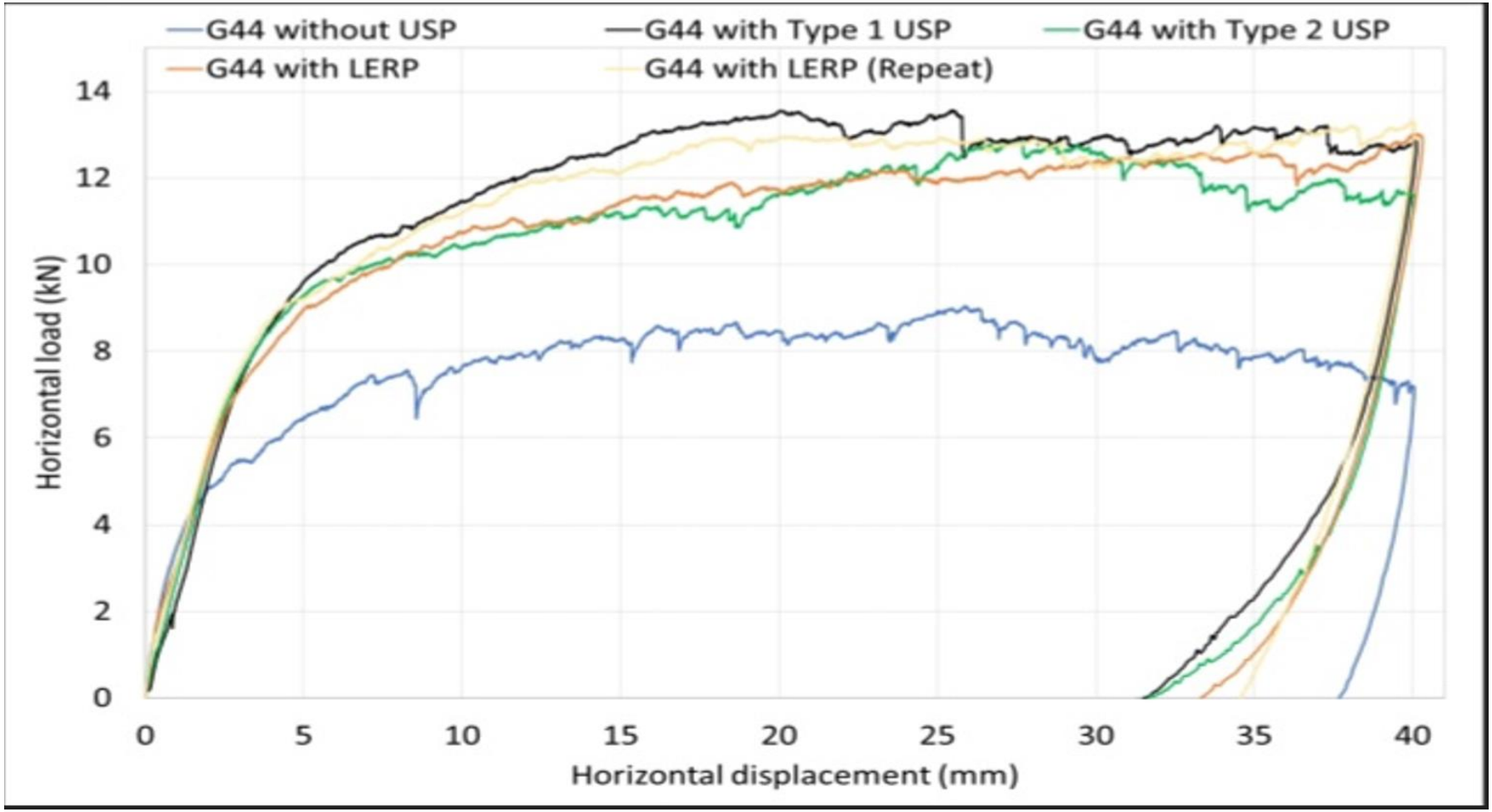


LTR Tests at Southampton University

LTR Test Results



USP's instead of LERP's



Network Rail Standard

5.8.1 Under-sleeper pads

Under-sleeper pads shall be specified on all category 1A, 1 and 2 track.

Where under-sleeper pads are not specified, the variation justification should be supported with a whole life cost analysis and consider any forecast future tonnage increases.

***NOTE 1**: Design checks should be applied in accordance with NR/L2/TRK/4239.*

***NOTE 2**: It may also be appropriate to consider the use of under-sleeper pads in track category 3,4 or 5 if there are heavy axle loadings.*

Under-sleeper pads used for ballast protection on plain line shall have a bedding modulus C static of equal to or greater than 0.30N/mm^3.

Under-sleeper pads used for noise and vibration reduction shall have a bedding modulus C static of between 0.04N/mm^3 to 0.12N/mm^3.

***NOTE 3**: bedding modulus C static is defined in BS EN 16730*

Where mitigation measures are required to reduce noise and vibration impact, a site history analysis or noise & vibration study shall be conducted.

Network Rail Regions and Routes

UK Market

April 19 – March 20

Row Labels	Sum of Quantity
LNE	4417
LNW North	19761
LNW South	16750
North West	1778
Not Specified	3811
Scotland	2016
South East	2688
Wessex	5712
Grand Total	56933

UK Market

April 19 – March 20

Row Labels	Sum of Quantity
LNE	4417
LNW North	19761
LNW South	16750
North West	1778
Not Specified	3811
Scotland	2016
South East	2688
Wessex	5712
Grand Total	56933

April 20 – March 21

Row Labels	Sum of Quantity Planned
Anglia	504
Central	14340
East Coast	56
LNE	1820
North & East	336
North West	18336
Scotland	15904
South East	672
Sussex	3304
Wessex	4816
West Coast Mainline South	13353
Western	1904
Other	3151
Grand Total	78496

UK Market

April 19 – March 20

Row Labels	Sum of Quantity
LNE	4417
LNW North	19761
LNW South	16750
North West	1778
Not Specified	3811
Scotland	2016
South East	2688
Wessex	5712
Grand Total	56933

April 20 – March 21

Row Labels	Sum of Quantity Planned
Anglia	504
Central	14340
East Coast	56
LNE	1820
North & East	336
North West	18336
Scotland	15904
South East	672
Sussex	3304
Wessex	4816
West Coast Mainline South	13353
Western	1904
Other	3151
Grand Total	78496

- April 21 – March 22

Row Labels	Sum of Loaded Quantity
Central	9133
East Midlands	224
Kent	1400
North & East	7028
North West	21659
Scotland	25704
Sussex	672
Wessex	6790
West Coast Mainline South	13416
Western	224
(blank)	26137
Grand Total	112387

UK Market

April 19 – March 20

Row Labels	Sum of Quantity
LNE	4417
LNW North	19761
LNW South	16750
North West	1778
Not Specified	3811
Scotland	2016
South East	2688
Wessex	5712
Grand Total	56933

April 20 – March 21

Row Labels	Sum of Quantity Planned
Anglia	504
Central	14340
East Coast	56
LNE	1820
North & East	336
North West	18336
Scotland	15904
South East	672
Sussex	3304
Wessex	4816
West Coast Mainline South	13353
Western	1904
Other	3151
Grand Total	78496

- April 21 – March 22

Row Labels	Sum of Loaded Quantity
Central	9133
East Midlands	224
Kent	1400
North & East	7028
North West	21659
Scotland	25704
Sussex	672
Wessex	6790
West Coast Mainline South	13416
Western	224
(blank)	26137
Grand Total	112387

- All newly produced concrete sleepers for London Underground have our under sleeper pads

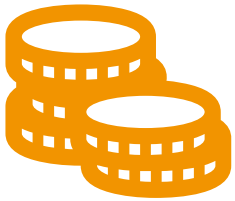
Network Rail USP usage by area 2023/2024

Route	Non USP Volume	USP Volume	Total	% of USP
Anglia	6,300	896	7,196	12.5%
Central	11,360	6,226	17,586	35.4%
East Coast	15,834	280	16,114	1.7%
East Midlands	18,889	8,232	27,121	30.4%
Kent	12,208	2,520	14,728	17.1%
North & East	18,411	25,599	44,010	58.2%
North West	1,694	26,447	28,141	94.0%
Scotland	6,608	33,376	39,984	83.5%
Sussex	8,672	2,296	10,968	20.9%
Wales & Borders	26,160	-	26,160	0.0%
Wessex	19,654	8,904	28,558	31.2%
West Coast Mainline South	30,116	28,047	58,163	48.2%
Western	45,405	-	45,405	0.0%
	221,311	142,823	364,134	39.2%

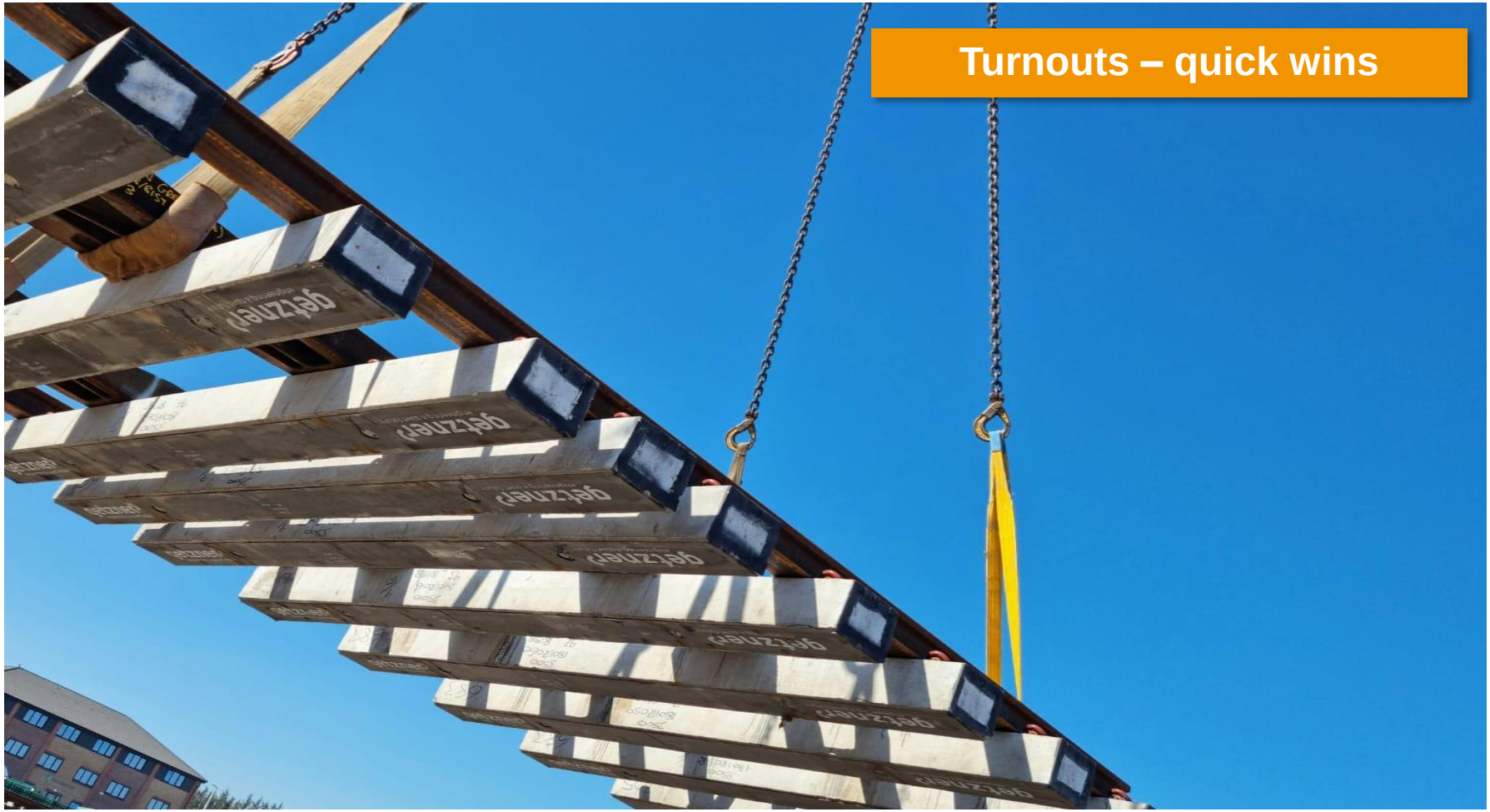
Benefits

- Improved track quality → less wear and tear
- Reduced maintenance costs due to minimised deterioration of ballast
- Increased track availability
- Increase of lifetime of track by min. 30%
- Greater Lateral Track Resistance

Increased availability and profitability!



Turnouts

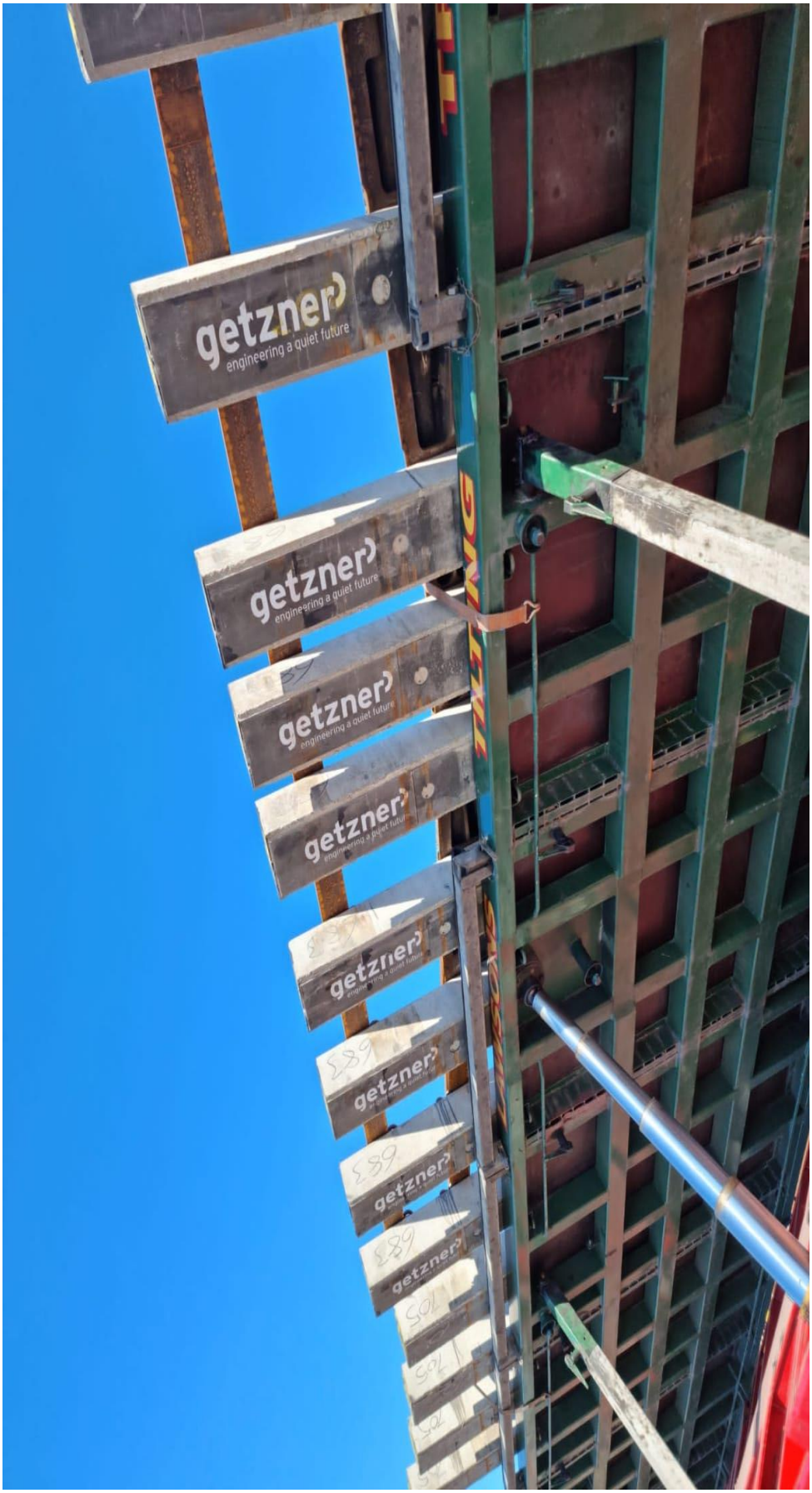


UK S&C’s

- Network Rail, around 60% use Under Bearer Pads (estimate)
- London Underground 100% Under Bearer Pads


getzner
engineering a quiet future


getzner
engineering a quiet future


getzner
engineering a quiet future
getzner
engineering a quiet future
getzner
engineering a quiet future
getzner
getzner
getzner
getzner
getzner

Vibration Isolation

SLN sylodyn® by getzner

SLS sylomer® by getzner

Ballast Protection

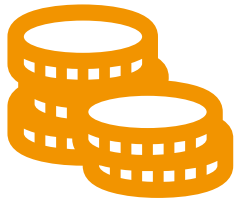
SLB sylomer® by getzner

Elastic Solutions for Ballasted Track
Under Sleeper Pads in Turnouts

Benefits

- Less wear of all turnout components → Improved track quality
- Reduced maintenance costs due to longer tamping intervals
- Extended service life and higher availability
- Little additional investment compared to the costs of a whole turnout

Increased availability and profitability!



Under Sleeper Pad Considerations

- Contact Area Increased by up to Ten Times
- 85% Less Ballast Contact Pressure
- 60% Less Maintenance – Greater Track Availability – Cost Savings
- 30% Extension of the Lifetime of the Track – Cost Savings
- 100% Greater Load Distribution
- Greater Lateral Track Resistance (Cheaper Alternative to LERPS)
- Reduced Ballast Height Possible – 250mm instead of 300mm
- Reduction in Whole Life Cycle Costs
- Reduction in Whole Life Cycle Carbon Footprint
- Less Maintenance = Less Boots on Ballast
- Less Maintenance = Greater track availability – 24 hour railway

getzner
engineering a quiet future

Under Ballast Mats

Railway Bridges

- are among the most important structures on railway lines
- cause high costs
- limit the availability of a track

Ballast Depth Reduction for Your Superstructure
Under Ballast Mats

Transport for London
London Underground

Product Registration Certificate

Printed on: 23 May 2012

Registration No.	334
Title	Ballast Mats
Status	Authorised For Use
Supersedes ProductID	N/A
Superseded By ProductID	N/A
Date Authorised for Use	18 May 2012
Primary Use	To be installed on civil assets, interfacing with track bed, where track bed depths are compromised
Additional Info/KeyWords	Manufacturer: Getzner - Brochure attached UK Supplier: Lesmac LU Standard: 1-160 Track Bed INSTALLATION REQS: Roll of design specific thickness mat, laid at bottom of design ballast depth, no cross-fall (Level). Ballast Mats will limit static & dynamic forces exerted by rail traffic upon a structure, resulting in enhanced track stability & reduction of ballast compression.
Classification Hierarchy	Track
Manufactured By	Lesmac Fasteners Ltd (Version/PartNo: D619)

Requirements

ReqID	Requirement	Status	Trial
487	The supplier must provide evidence of satisfactory in-track performance where ballast mats were installed on other railways. The evidence must show how the proposed material was selected, the extent to which any noise and vibration problems were mitigated, the effect on ballast life and track geometry retention, and explain the durability of the mats in service.	Satisfied	
488	Where used in tunnel sections the mats must comply with, or have a concession against, LU standard 1-085 "Fire safety performance of materials".	Satisfied	
491	The supplier must provide instructions/guidance on installation method	Satisfied	

Conditions

Description	Linked To ReqID
No records to display.	

Evidence

EvidenceText	EvidenceType	FileName	Linked To ReqID
Product Description	User Guide	Getzner - Ballast Mat Brochure.pdf	
Fire waiver for use of Getzner ballast mats in sub-surface locations	Environmental aspects and impacts	Waiver 2076-CR06551 G.pdf	488

Refer to Web site www.lu-apr.co.uk to check current status, download attachments and for details of other products.

MAYOR OF LONDON

Inhomogeneous Track Stiffness

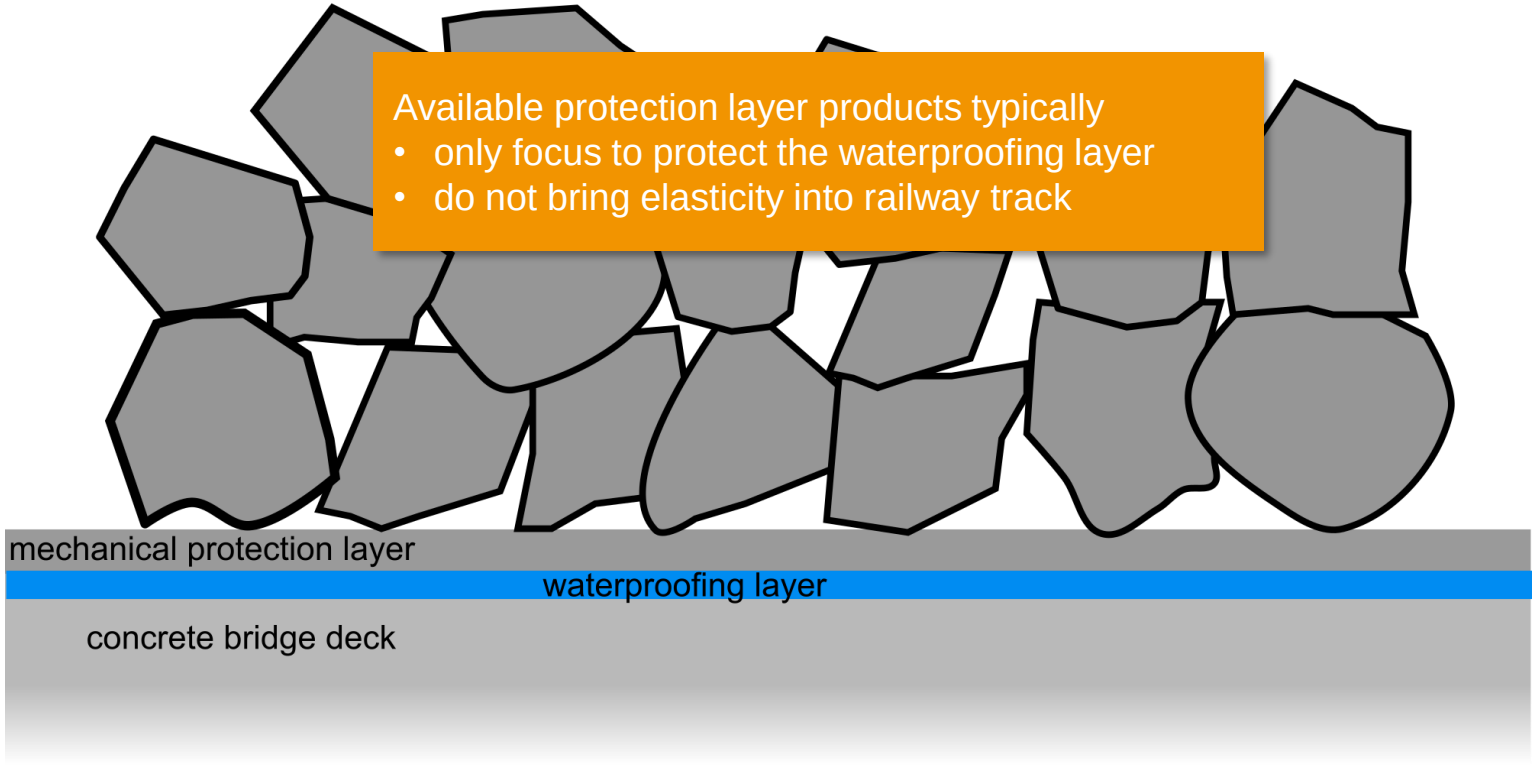
Bridges are so called „hot spots“

- Stiffness of the railway subsoil is changing abruptly
- Ballast height is different
- Sudden changes in overall vertical track stiffness

This results in

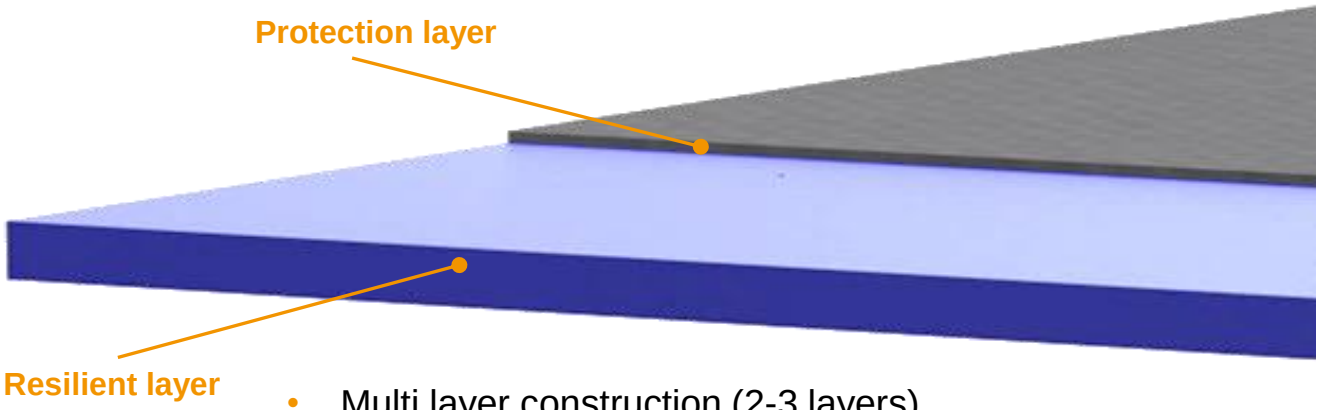
- High dynamical loads due to the stiffness change
- Fast deterioration of the track components - especially at the ballast
- Settlements, deterioration in track quality
- High maintenance effort and costs

Typical Structure of the Bridge-Ballast Interface




Under Ballast Mats

Under Ballast Mats
Product Overview



- Multi layer construction (2-3 layers)
- Various stiffnesses and thicknesses possible
- For all static stiffnesses different dynamic values
- No special geometric shapes necessary to enable the elasticity

Under Ballast Mats
Product Overview

- Area of application according to guideline of DB: TL 918 071

Urban transport

APPLICATION AREA	C_{stat}	PRODUCT NAME	THICKNESS mm	WEIGHT kg/m²
Urban Rail/Subways ≤ 130 kN axle load	C_{stat} = 0.007 N/mm³ v ≤ 100 km/h	Sylomer® A 728	28	6.0
	C_{stat} = 0.01 N/mm³ v ≤ 100 km/h	Sylomer® B 119	19	4.25
		Sylomer® B 123	23	5.8
		Sylomer® B 135	33	9.5
		Sylodyn® BN 140	40	11.0
Light Rail lines ≤ 160 kN axle load	C_{stat} = 0.02 N/mm³ v ≤ 120 km/h	Sylomer® C 219	19	5.3
		Sylodyn® CN 225	25	6.4
		Sylodyn® CN 235	35	10.0
Side mats urban transp.	C_{stat} = 0.01 N/mm³	Sylomer® SM 119	19	4.3

- Choice of UBM type according to project specific requirements

Main line

APPLICATION AREA	C_{stat}	PRODUCT NAME	THICKNESS mm	WEIGHT kg/m²
≤ 250 kN axle load	C_{stat} = 0.03 N/mm³ v ≤ 120 km/h	Sylomer® D 319	19	5.8
		Sylodyn® DN 319	19	4.4
		Sylodyn® DN 325	25	7.1
		Sylodyn® DN 335	35	11.2
	C_{stat} = 0.06 N/mm³ v ≤ 200 km/h	Sylomer® D 619	18	5.7
		Sylodyn® DN 619	19	6.2
	C_{stat} = 0.10 N/mm³ v ≥ 200 km/h	Sylomer® D 1019	18	6.5
		Sylodyn® DN 1019	18	6.3
	C_{stat} = 0.15 N/mm³ v ≥ 200 km/h	Sylomer® D 1519	18	8.0
Side mats main lines	C_{stat} = 0.03 N/mm³	Sylomer® SM 319	19	5.0

Solutions For Ballasted Track Under Ballast Mats

Product Overview


Getzner

Getzner UBM Can Easily Be Cut With A Knife


Getzner UBM Can Easily
Be Connected By welding

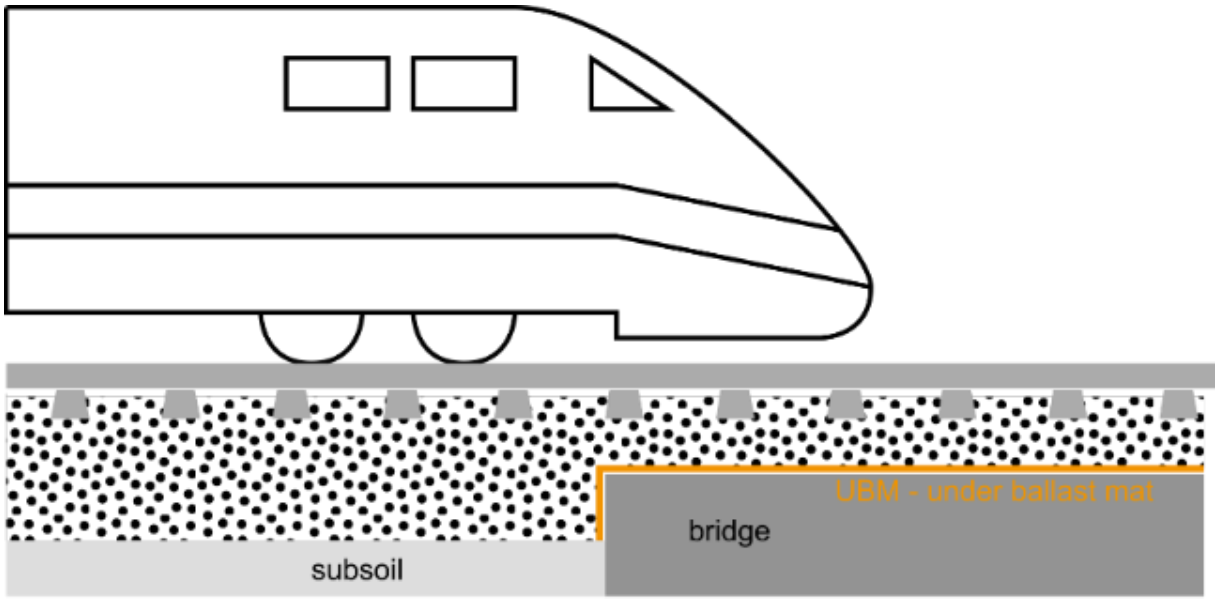
Accessibility With Rubber Tyred Vehicles

Ballast Protection

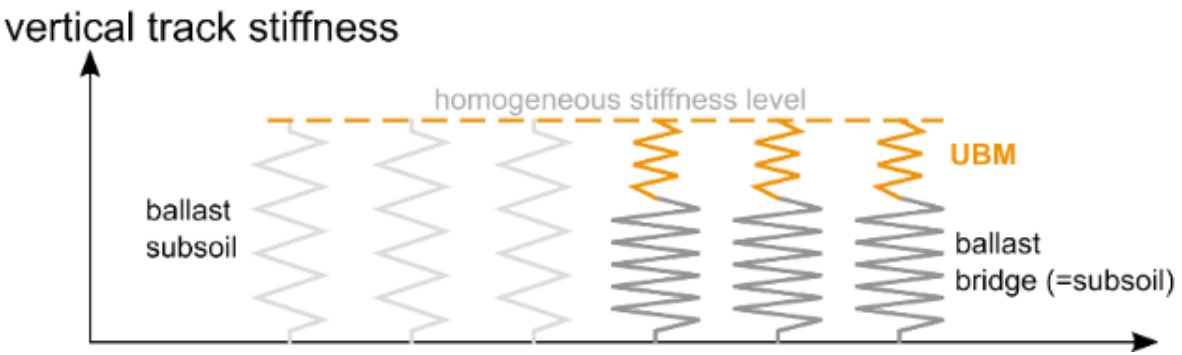
High contact area due to the elasticity/plasticity of the material

Reduced ballast stress

Adaption of track stiffness

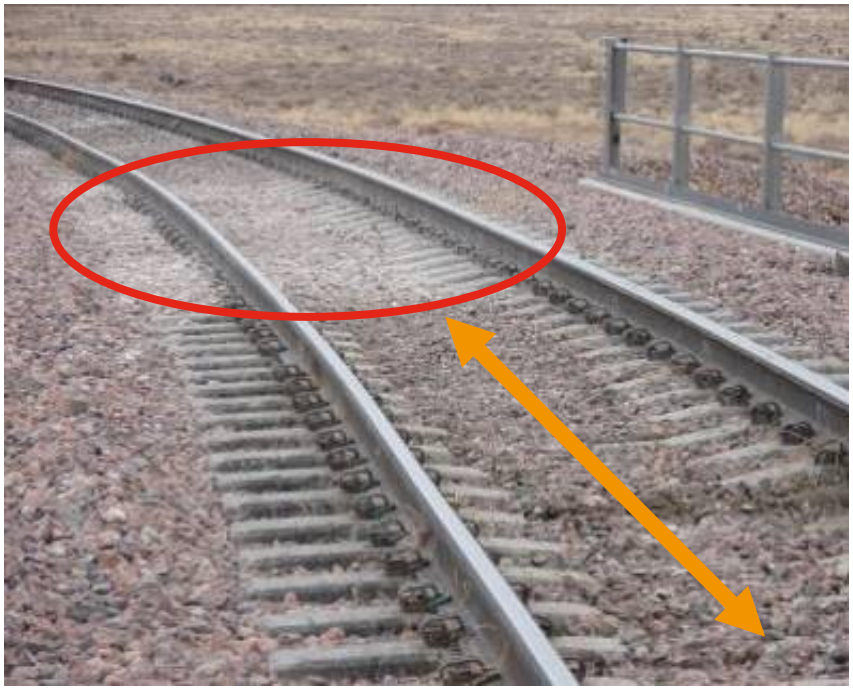


- compensation of the track stiffness change by under ballast mat
- avoiding “hot spots”



Under Ballast Mats
Applications: Track Defects

Section with under ballast mat in perfect condition

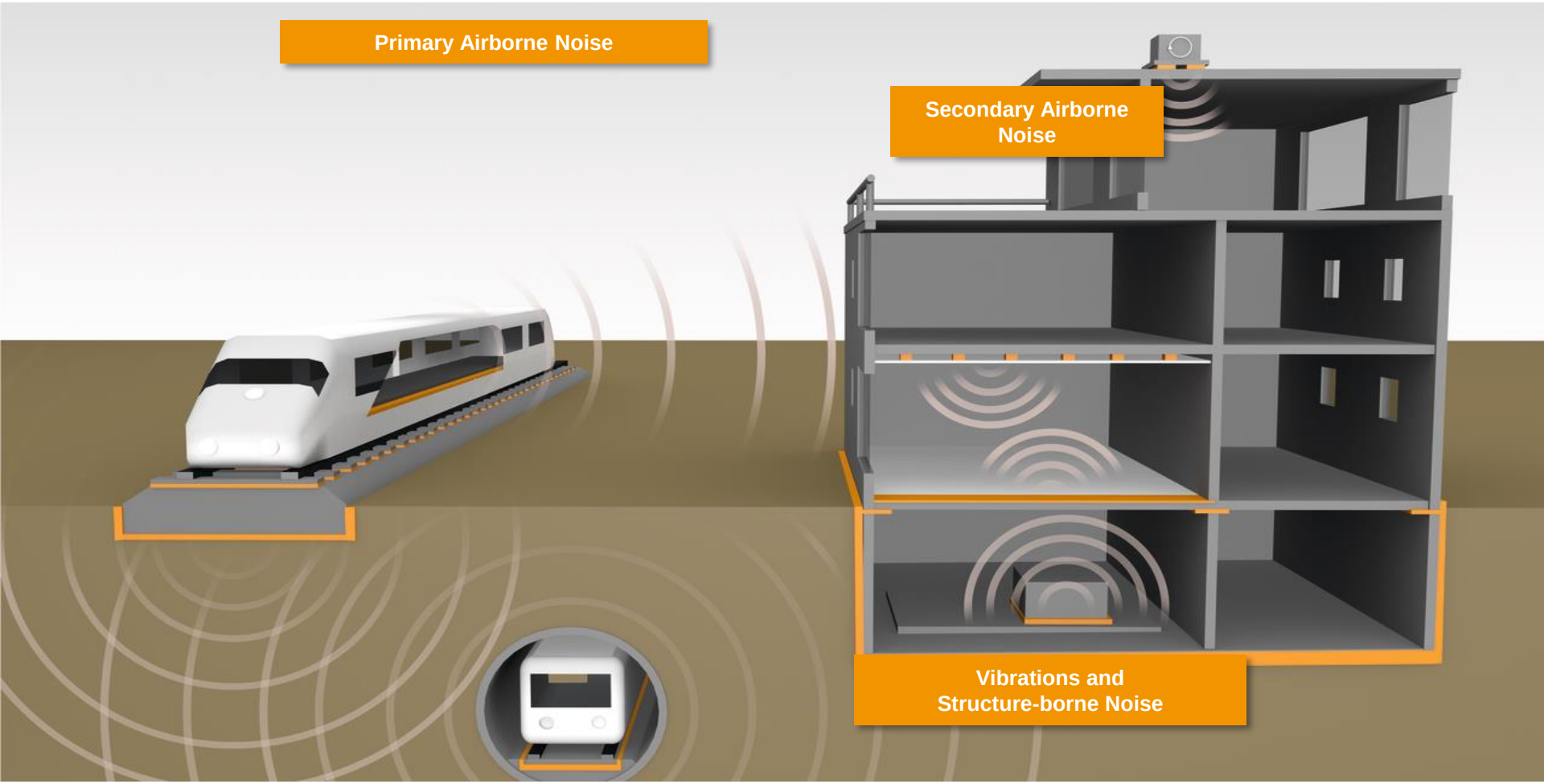


Ballast heavily deteriorated (section without UBM

Visual Inspection After 50 MGT

TTCI Transportation Technology Center, Inc.

- Noise and Vibration Mitigation

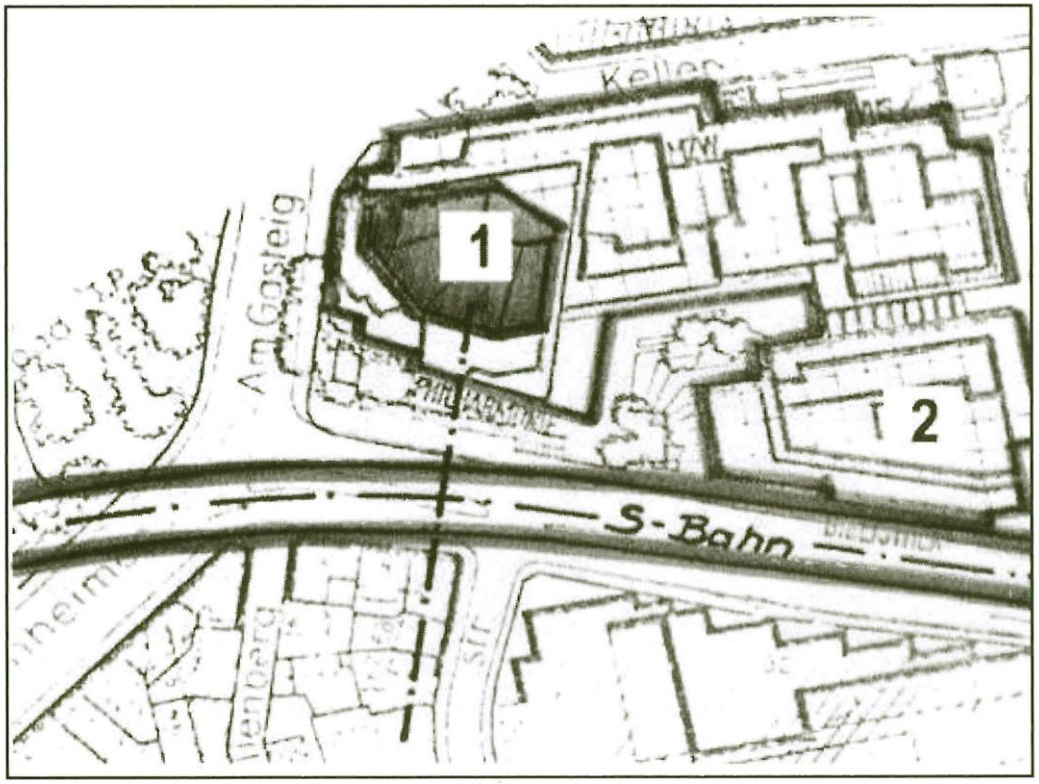


Solutions for Ballasted Track Under Ballast Mats

Why Vibration Mitigation?

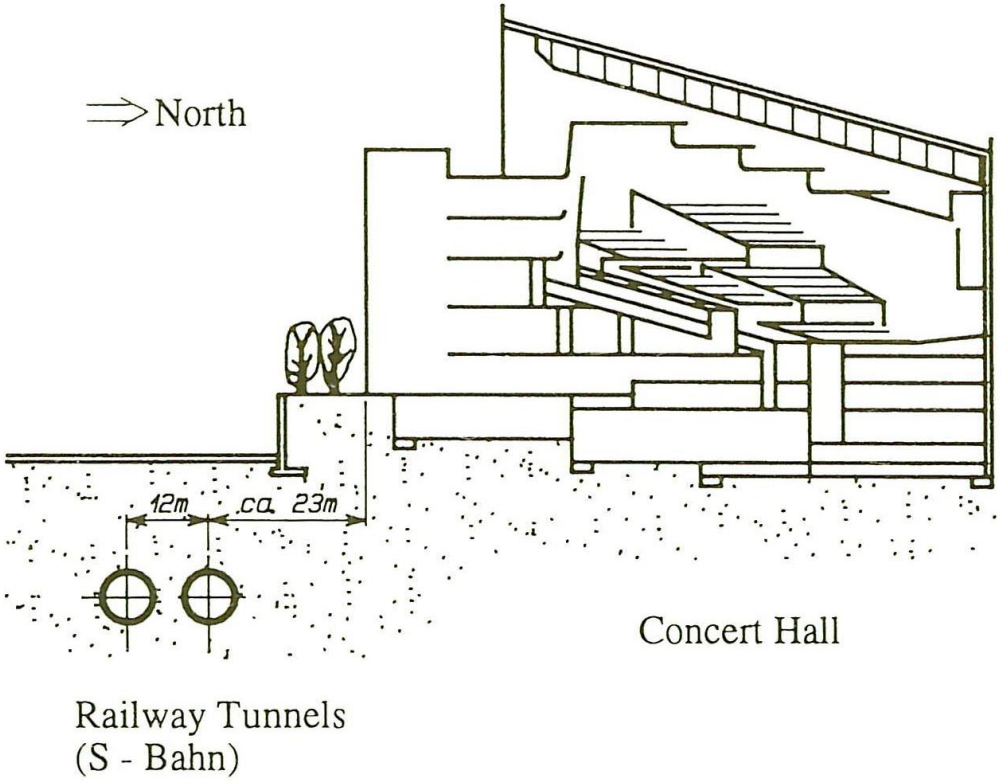

Gasteig

Under Ballast Mats
References: Munich (DE)



Drawing from original project documentation

Under Ballast Mats
References: Munich (DE)



Drawing from original project documentation


• UBM completely under water
• Ballast depth: 18 cm
• Accumulated load since installation:
1 400 000 000 load tons


• Removal of mats in 2012
• Mats submerged in water

Under Ballast Mats
References: Munich (DE)

Results: Comparison of Values

	1983
	0,0083 N/mm³
	0,0388 N/mm³

After 29 Years: C_{stat} still Inside Original Specification

After 29 Years: C_{dyn} still Inside Original Specification

Under Ballast Mats
References: General Info

- Till now more than **5.000.000 m²** installed UBM; in tracks with different speeds, axle loads, geological conditions and track types (tunnels, bridges, viaducts, stations)
- Products are **qualified by independent test institutes** (Technical University of Munich, Müller BBM GmbH, Construction Technology Laboratories in Chicago, EMPA Zurich)
- **Qualified supplier for the many railway companies** (e.g. DB, SNCF, GIF, ÖBB, SBB, Trafikverket, Japanese Railways, Bane Denmark)

Benefit of the Getzner UBM for Bridge Deck Protection

Technology leader Getzner

- High performance products
- Long time proven references
- Wide experience
- Providing customized solutions and services

UBM installation

- Quick product installation
- Easy application of the ballast due to the drivability on the mats
- Possibility of pre-installation

Economic system solution

- Reduced components deterioration
- Less maintenance work
- High availability of the track
- Minimal life cycle costs

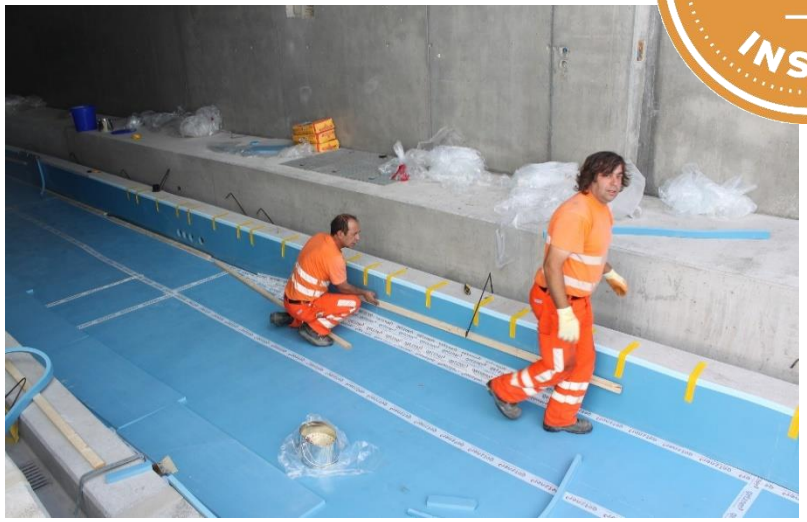
Mass-spring Systems (MFS)

Full Surface Mass-spring Systems
Installation Steps

Project: Samedan, Switzerland

Full Surface Mass-spring Systems
Installation Steps

GETZNER — sylomer® — INSIDE



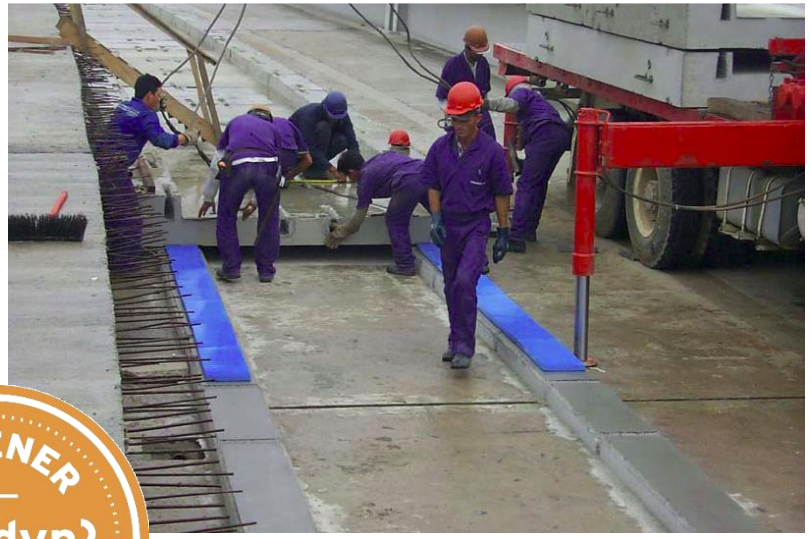
Project: Samedan, Switzerland

Full Surface Mass-spring Systems
Installation

Project: Gmunden, Austria

Project: Cuenca, Ecuador

Strip Mass-spring Systems
Installation Steps



GETZNER sylodyn INSIDE

Project: Metro Sao Paulo, Brazil

Strip Mass-spring Systems
Installation Steps

Project: San Sebastian, Spain, 14 Hz

Strip Mass-spring Systems
Installation Steps

Project: Munich, Germany

Discrete Mass-spring Systems

Project: HSL Köln Rhein/Main, Germany, 10 Hz

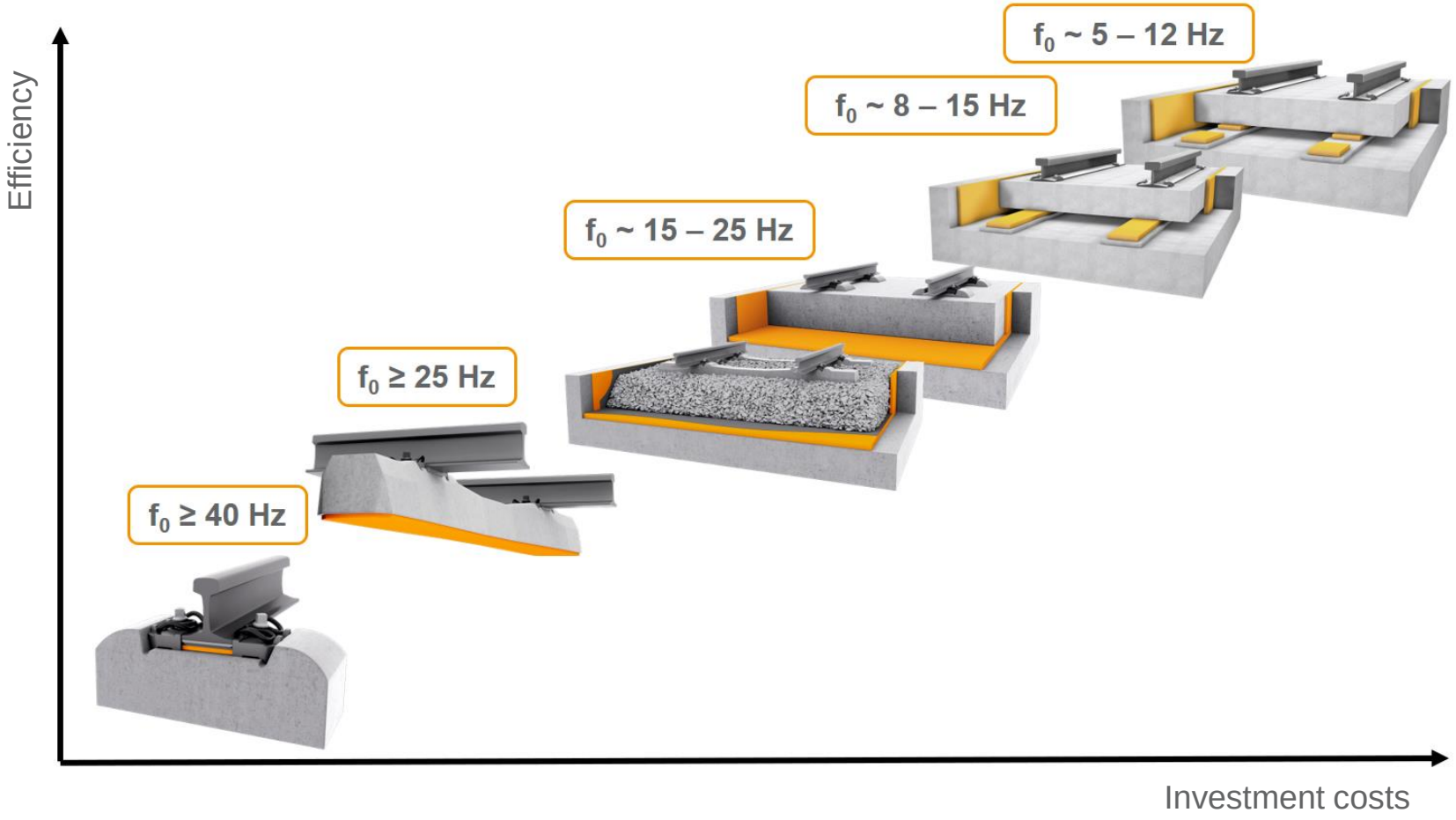
Discrete Mass-spring Systems

Project: San Fernando, Spain, < 7 Hz

Project: Lainzer Tunnel, Austria

Noise and Vibration Control in Railway Systems

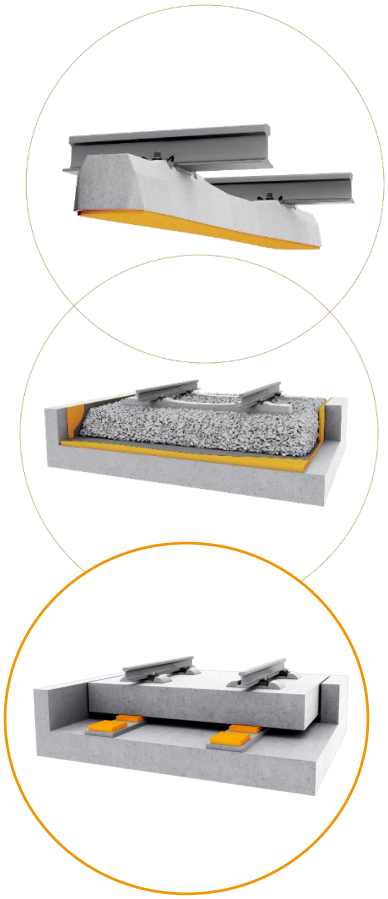
Obtainable Natural Frequencies



Elastic Solutions for Modern Railway Superstructure
Conclusion

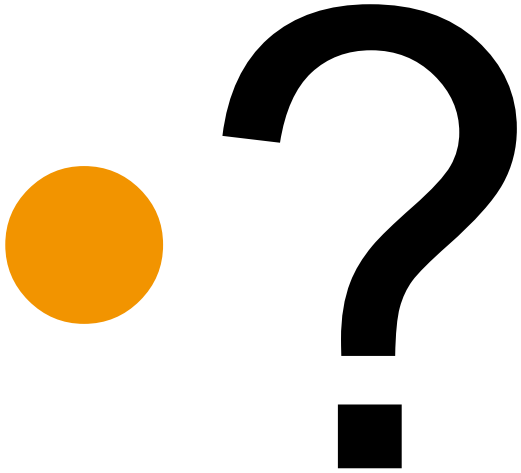
standard railway superstructure

PUR elasticity

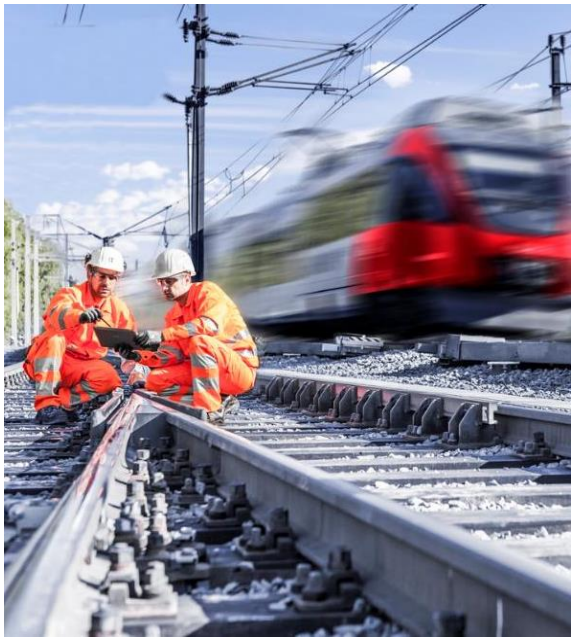


more sustainable & more silent superstructure

Questions



Getzner Werkstoffe
Business Units



Railway

Construction

Industry

- Andy.Moore@Getzner.com Ben.VanBreda@Getzner.com

How can polyurethane be sustainable?

Table 4. Maintenance demands in the life cycle and service life for tracks with 30 000–45 000 gt day^{-1} , straight section, rail steel grade R 260.

	Maintenance demands in the life cycle	Service life
Wooden sleepers,	Tamping 6×	35 years
Rail profile 54E2	Grinding 1×	
Concrete sleepers,	Tamping 6×	36 years
Rail profile 60E1	Grinding 1×	
Concrete sleepers with under sleeper pads,	Tamping 4×	50 years
Rail profile 60E1	Grinding 2×	

→ **Elongation of system life cycle**

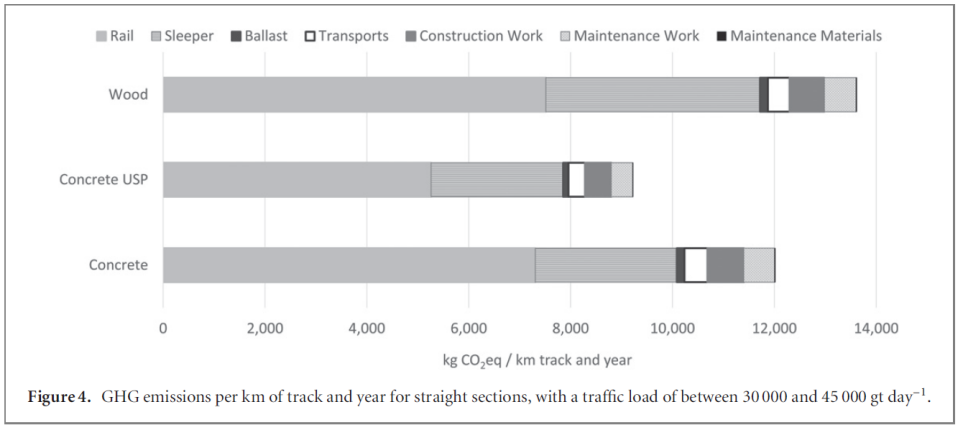


Figure 4. GHG emissions per km of track and year for straight sections, with a traffic load of between 30 000 and 45 000 gt day^{-1}.

→ **Reduction of CO_2**

+ Reduction of noise & vibration

Source: Landgraf, M. & Horvath, A. (2021). Embodied greenhouse gas assessment of railway infrastructure: the case of Austria. Environmental Research: Infrastructure and Sustainability, 1(2), 025008.

Getzner Circular Technologies
Production of recycled polyurethane

- In-house research on mechanical & chemical recycling for production & post-consumer waste
- First products made of recycling material are already in the portfolio, more will follow

Granulate products

Recycled raw materials

At Getzner, sustainability is a lot more than just a buzz word.

Our products are built to last!

Our Production:

We generate electricity using natural energy sources and emit no harmful emissions into the environment

100% of our power consumption is powered by our inhouse hydroelectric power plants.

90% of the process waste heat from production equipment is used for heating and cooling our headquarters.

Our Railway Solutions:

Extend the lifetime of the track by at least 30%

Decrease the amount of maintenance required by 60%

Retain their material properties without any loss in performance.

Can be reused or recycled, feeding them back into the production cycle.

Over 50 years experience of supplying certified products, equates to a more environmentally friendly and sustainable future