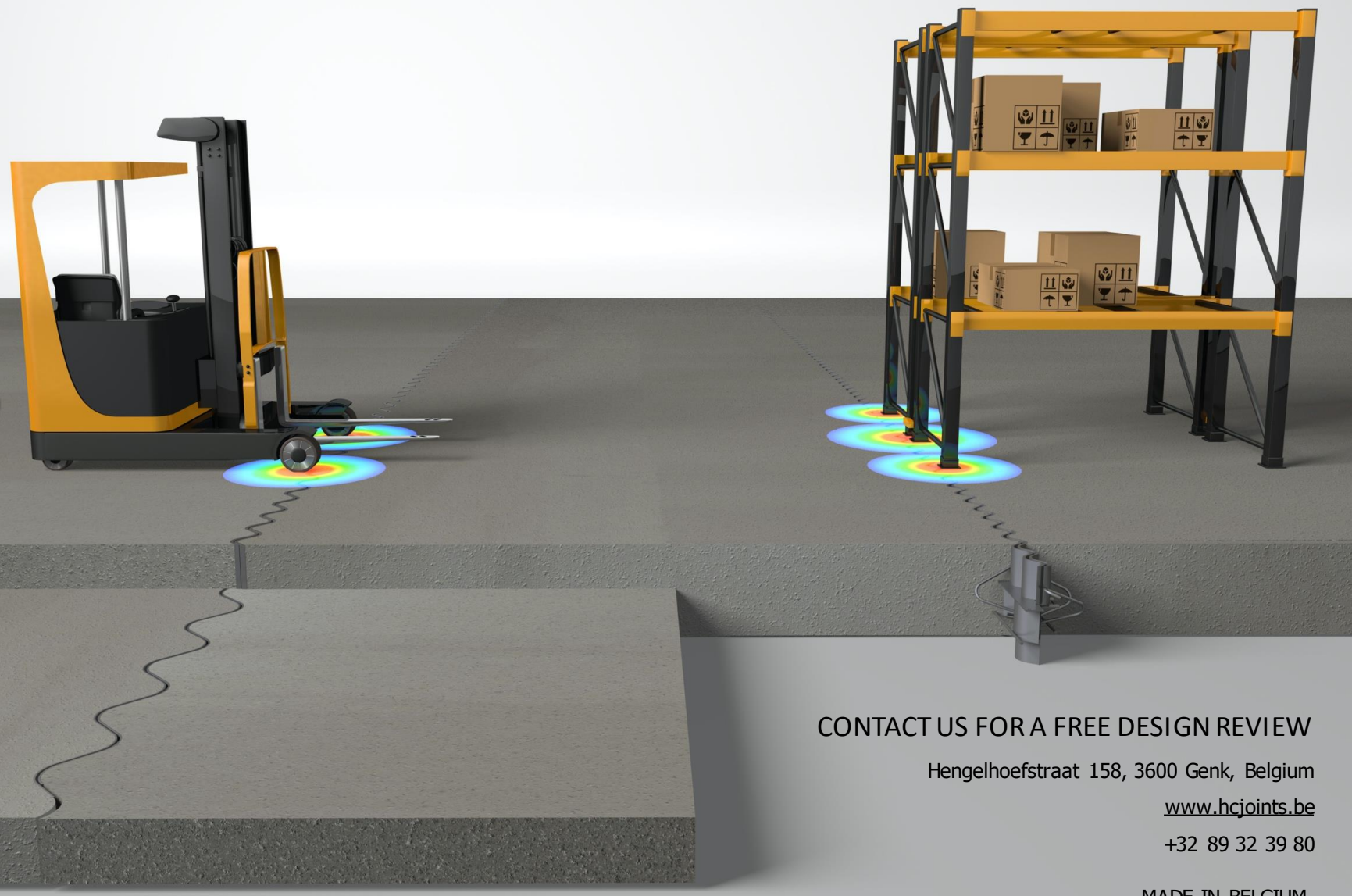
HENGELHOEF
CONCRETE JOINTS

Always the best in class joints for your current and future flooring requirements



CONTACT US FOR A FREE DESIGN REVIEW

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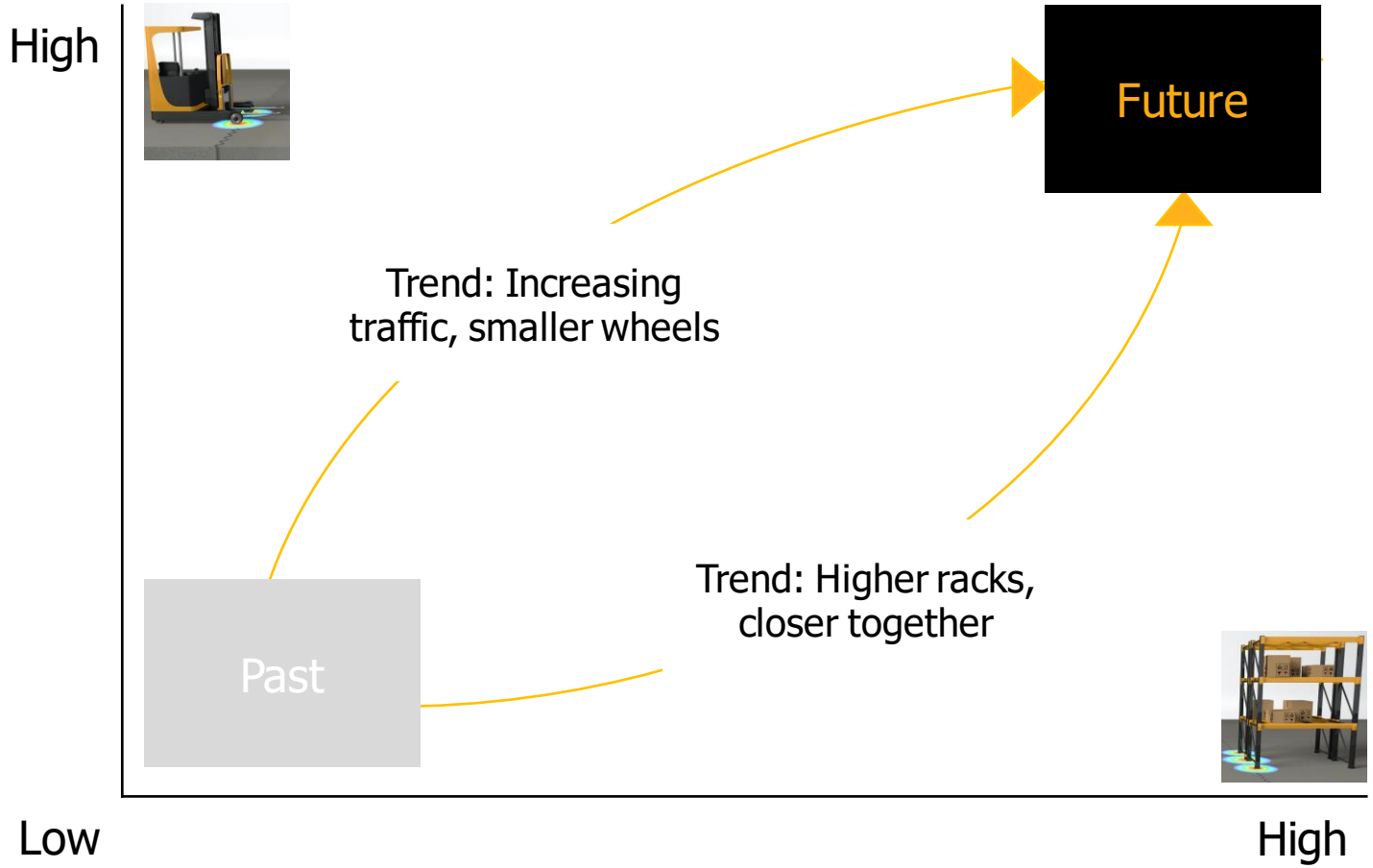
MADE IN BELGIUM

Flooring requirements continue to evolve with increasing traffic and rack loads

TRAFFIC loads (dynamic)

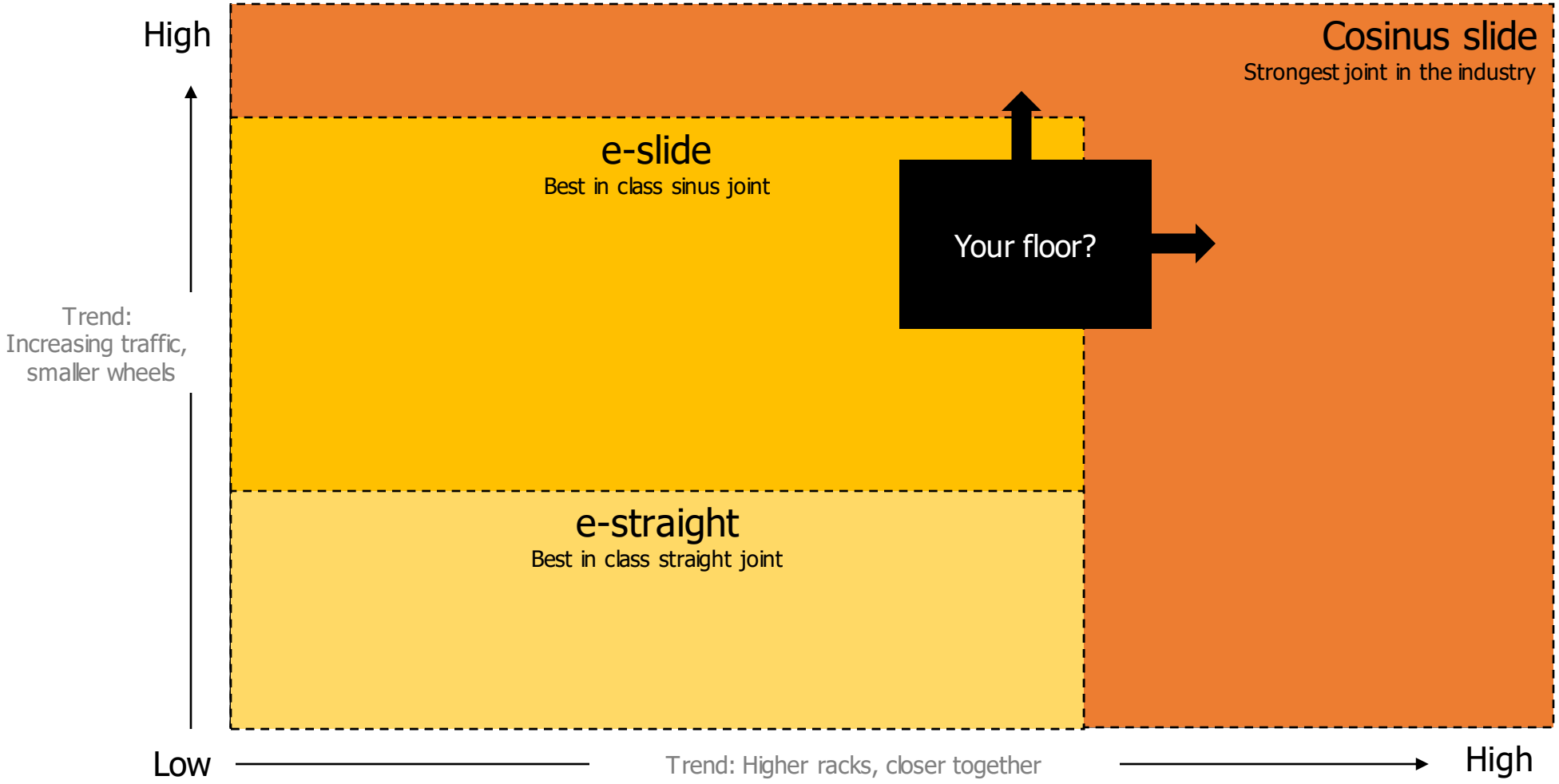


RACK loads (static)

Your current and future flooring requirements determine what joint is needed

HCJ offers a range of best in class joints that will ensure the optimal strength & performance

TRAFFIC loads (dynamic)



Performance issues in floors arise over time when the joints can’t handle the loads

Choosing the right joints for your project is very important, but not easy

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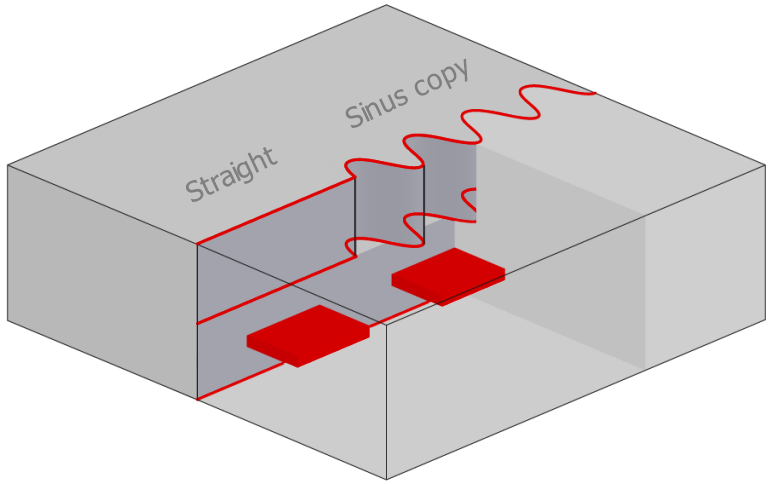
The strength of the floor is determined by how two slabs are **connected**

The difference between joint solutions is made below the surface

Other solutions

Discontinuous connection

(straight/sinus copies)



Loads concentrated on few points with plastic sleeves that leave tolerance to move, making the floor **vulnerable** for curling, deflection and damages in the end

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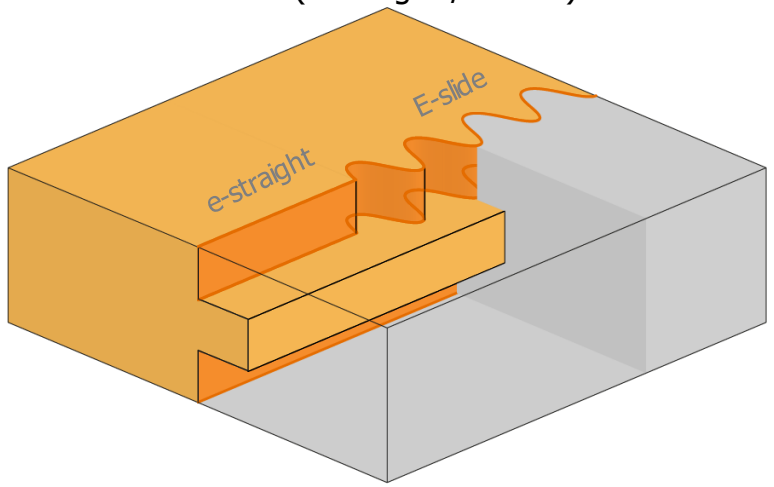
Continuous connection

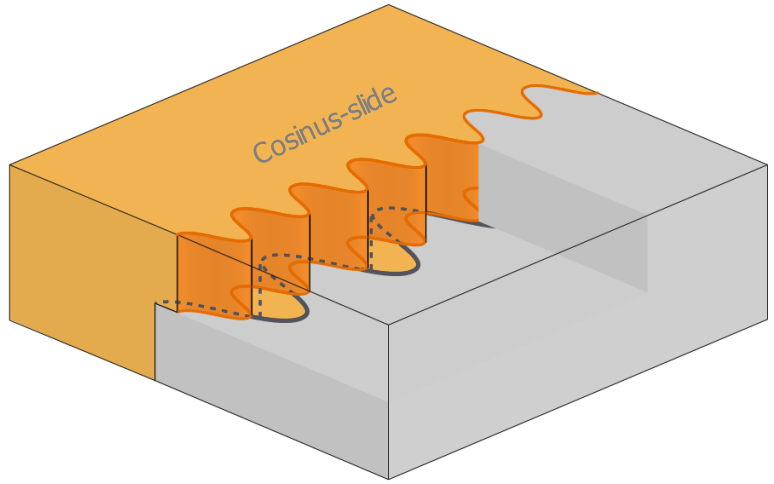
(e-straight / e-slide)



Loads handled over the entire length, making the floor **much stronger**

3D interlocked connection

(Cosinus slide)



Loads handled by the floor itself, making the floor **extremely strong**

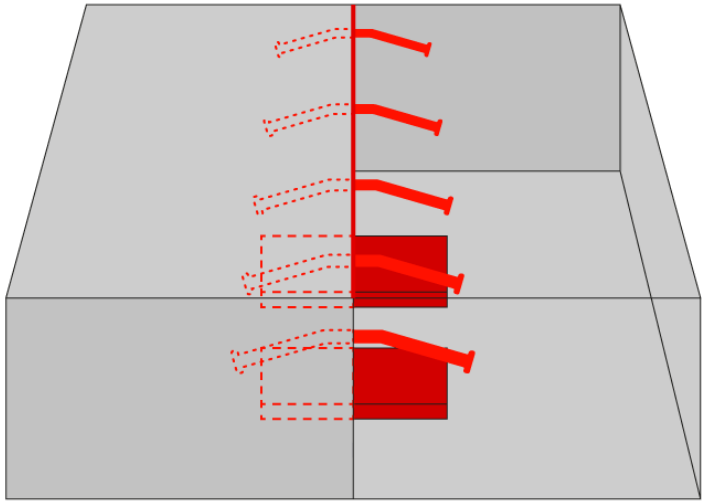
The floor strength is also determined by how the joint is "**anchored**" to the slab

Again the difference between joint solutions is made below the surface

Other solutions

Discontinuous 2D anchorage

(straight/sinus copies)



Slab anchored with repeating horizontal pins making the connection **vulnerable**

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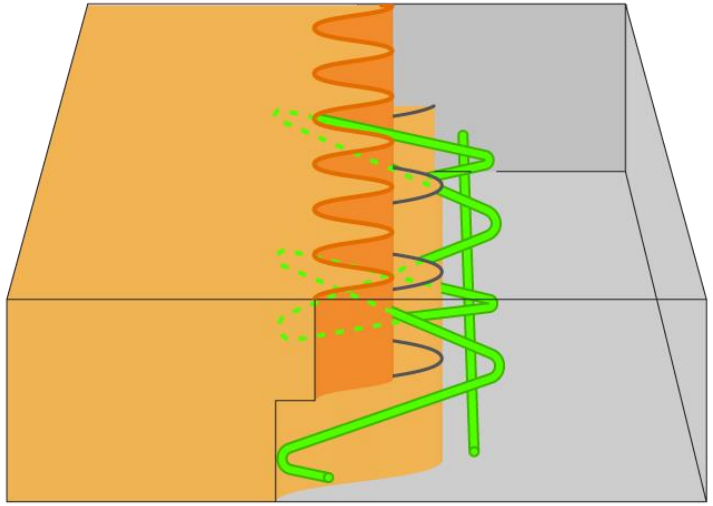
Continuous 3D anchorage

(e-straight / e-slide / Cosinus)

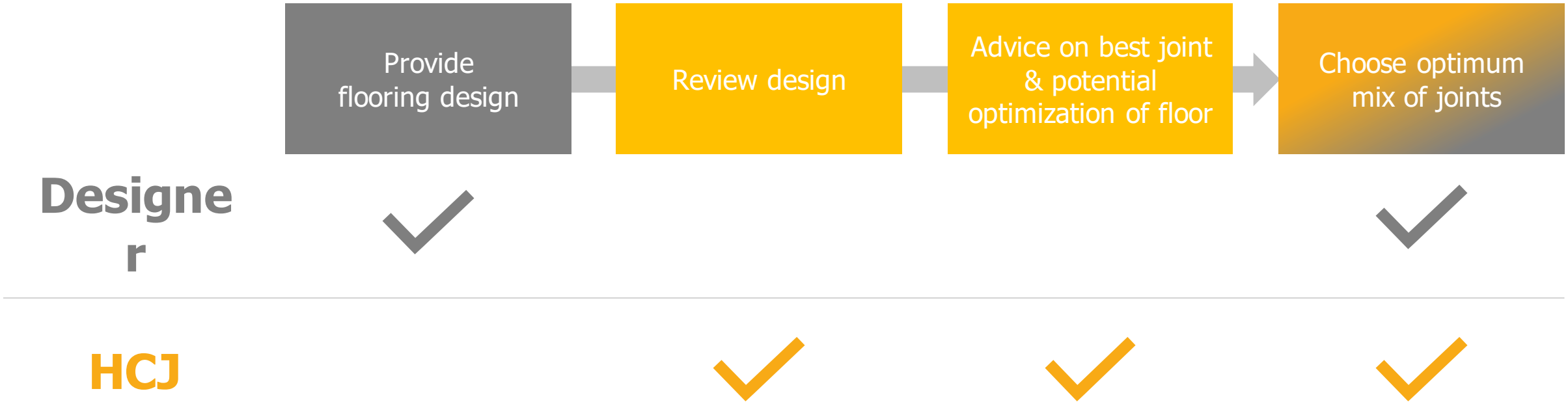


Slab anchored in 3D with continuous string, making the connection **extremely strong**

Our best in class joint solutions will meet all your performance requirements

		e-straight Best in class straight joint	**e-slide** Best in class sinus joint	**Cosinus-slide** Strongest joint in the market
Usage	**Traffic intensity (dynamic)**	Low	High	High
	Rack loads (static)	Normal	Normal	High
Technology	**Surface**	Straight	Sinus (invented by HCJ in 2007)	Sinus (invented by HCJ in 2007)
	Below surface	Continuous connection & 3D anchorage	Continuous connection & 3D anchorage	3D Interlocking (invented by HCJ in 2013) & 3D anchorage
Benefits	**Deformation limitation**			
	Curling limitation			
	Floor space optimization			
	Floor thickness optimization			

Therefore we offer a design review to determine the most cost-effective joint for your project and often we find ways to further optimize the entire floor



By applying the right joint you can realize long term cost savings

		30.000 m² floor case	
		Traditional straight joint	**Cosinus slide joint**
Joints	**Cost per m²**	€2,5	€4
	Total cost	€75.000	€120.000
Concrete	**Floor thickness**	22 cm	20 cm
	Total cost	€990.000[1]	€900.000
Usage 10 yrs	**Inefficient traffic**	€200.000[3]	-
	Floor repairs[4]	€50.000	-
	Total cost	**€1.315.000**	**€1.020.000 (-22%)**
		x Limited rack placement (97% effective floor space) x Wheel damage	✓ Free rack placement (100% free floor space) ✓ No wheel damage (25% less replacement costs) ✓ Free design check to calculate your savings

1: 0,22 m x 30.000 m² x 150,00 €/m³ = € 990.000
2: 0,20 m x 30.000 m² x 150,00 €/m³ = € 900.000
3: inefficient traffic (slowing down and accelerating at joints) assumed inefficiency 5% for 10 drivers at 40k €/a per driver equals a loss of €20.000 py
4: Maintenance after year 5, assumed that there is a 5 year warranty on the floor

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