

MAKING MOBILITY HAPPEN.

today / tomorrow / together

HÜBNER EXPERT TALKS

**DEVELOPING THE RIGHT MATERIALS –
HIGH-TECH FABRICS FOR GANGWAY APPLICATIONS**

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DEVELOPING THE RIGHT MATERIALS – HIGH-TECH FABRICS FOR GANGWAY APPLICATIONS

MORE THAN 30 TESTS ENSURE THE BEST QUALITY



FROM RAW MATERIALS TO FINISHED PRODUCT

THE HÜBNER GANGWAY: COMPREHENSIVE QUALITY ALL FROM EXPERTISE IN ALL PRODUCTION STEPS



RESEARCH AND DEVELOPMENT



MANUFACTURE OF COMPONENTS



GLOBAL PRODUCTION



QUALITY CONTROL AND DELIVERY

OUR KEY COMPETENCIES FOR YOUR SUCCESS

DEVELOPMENT OF NEW MATERIALS FOR GANGWAYS





DEVELOPMENT OF NEW MATERIALS FOR GANGWAYS

SUPPLIER OF COATED TECHNICAL TEXTILES

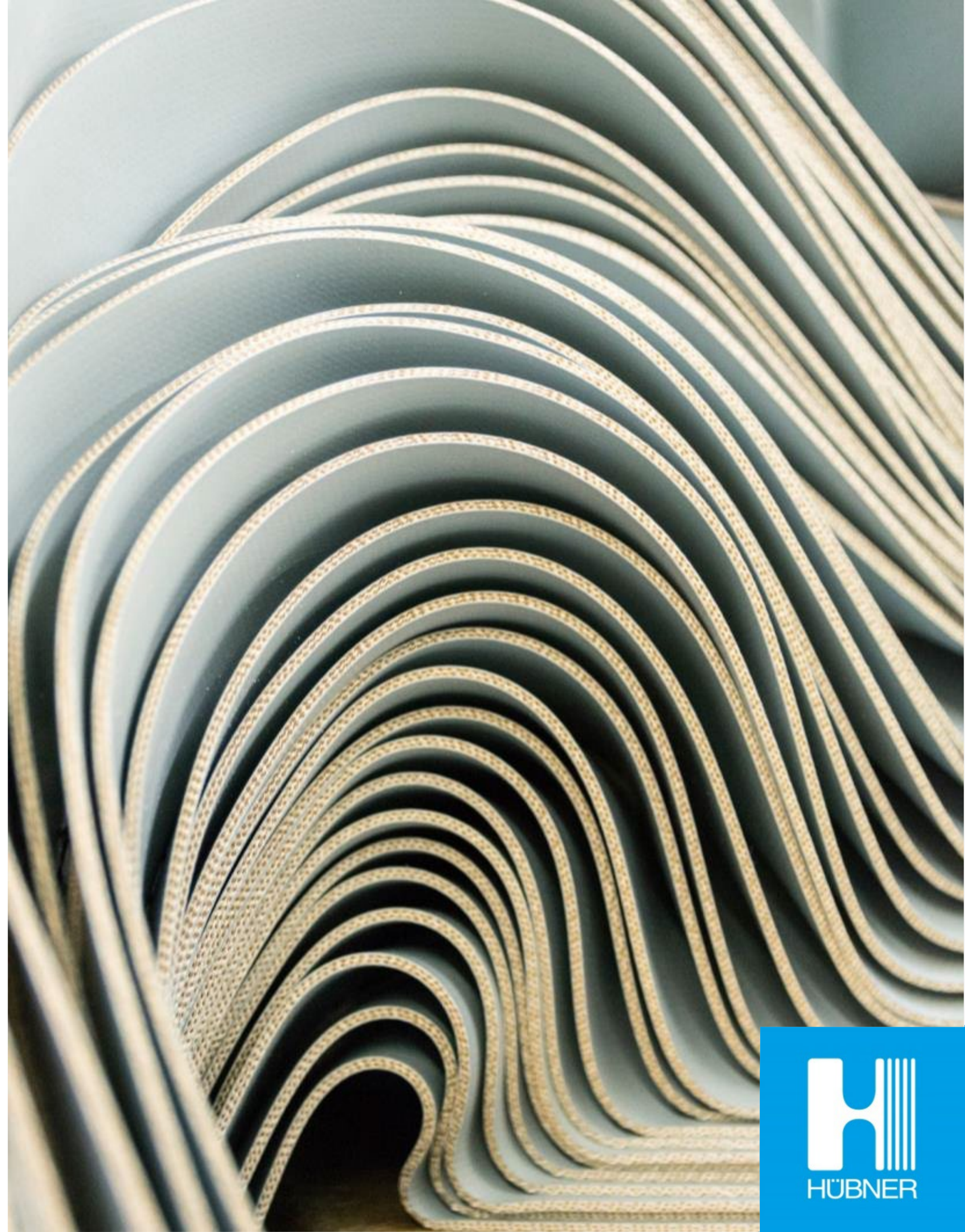
- PTO – the major supplier in the HÜBNER Group with nearly 100 years of experience
- A network of reliable high-quality suppliers all over the world
- Ongoing validation and development of new suppliers
- Our mission: get the best materials for our customers

OUR SPECIAL KNOWLEDGE

- Deep know-how in polymer mixing
- Extensive expertise in the development of technical textiles
- Key competence: Combining the polymers and textiles through coating

THE “SOUL” OF THE BELLOWS, ITS ELASTOMER-COATED TEXTILE MATERIAL

- Over 50 years of experience with coated technical textiles
- More the 20 experts cooperating on the development of rubber, textile and coating processes
- A well-equipped laboratory to test all aspects of our materials
- An in-house technical center to create first samples and upscale
- A wide range of possibilities to predict the lifetime of our materials

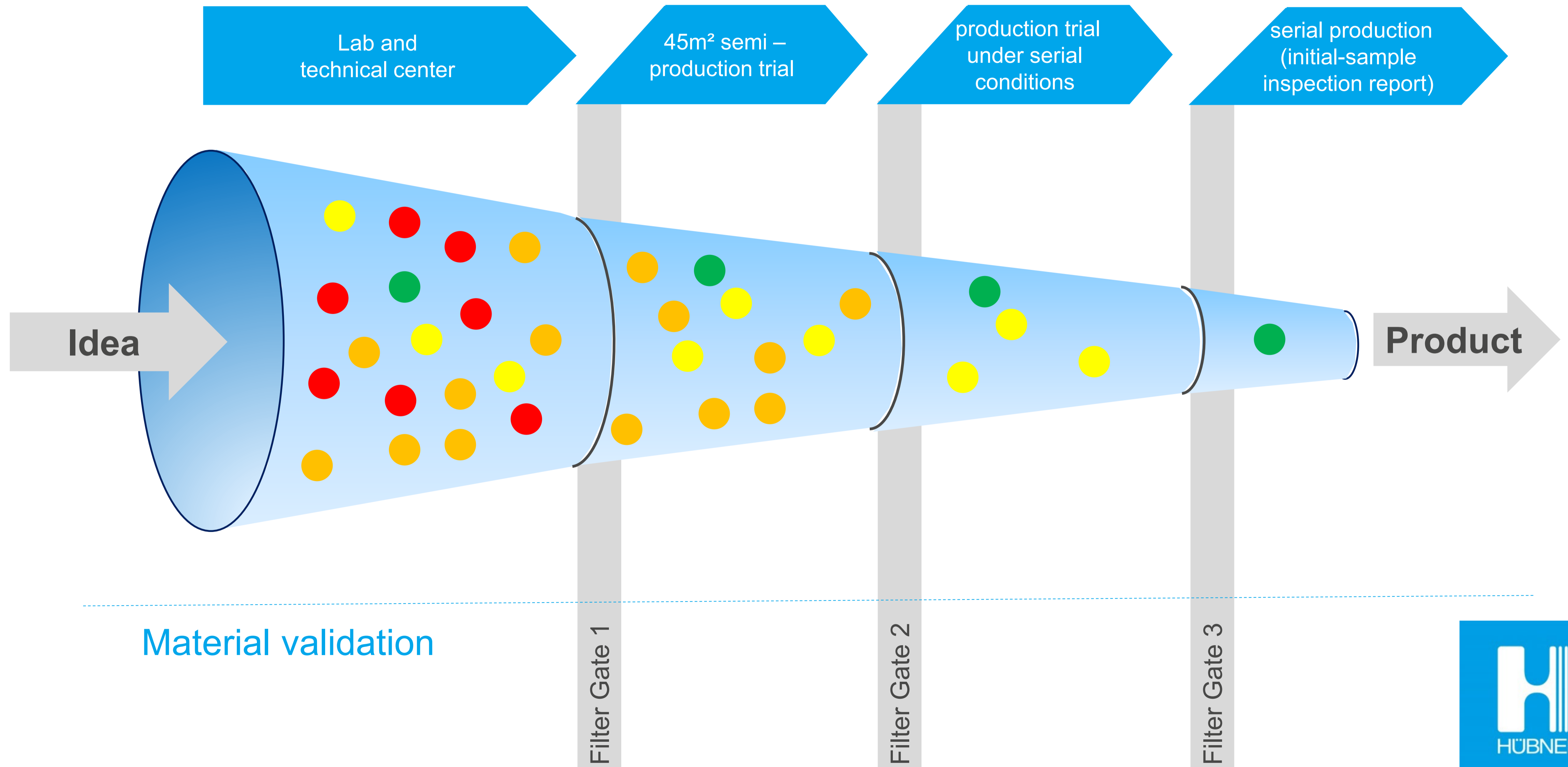




THE PROCESS OF DEVELOPMENT

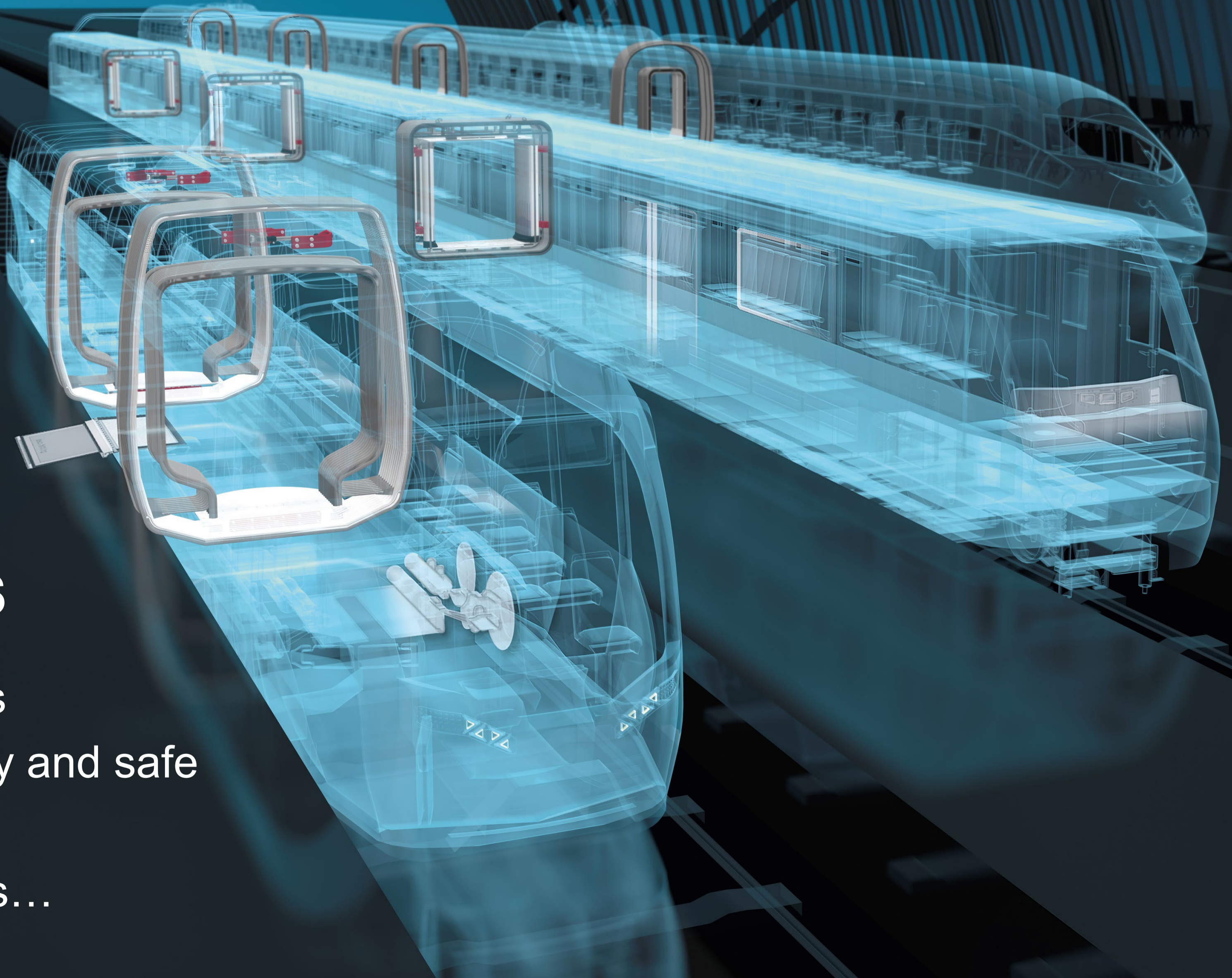
STAGE-GATE PROCESS

FROM THE IDEA TO THE PRODUCT

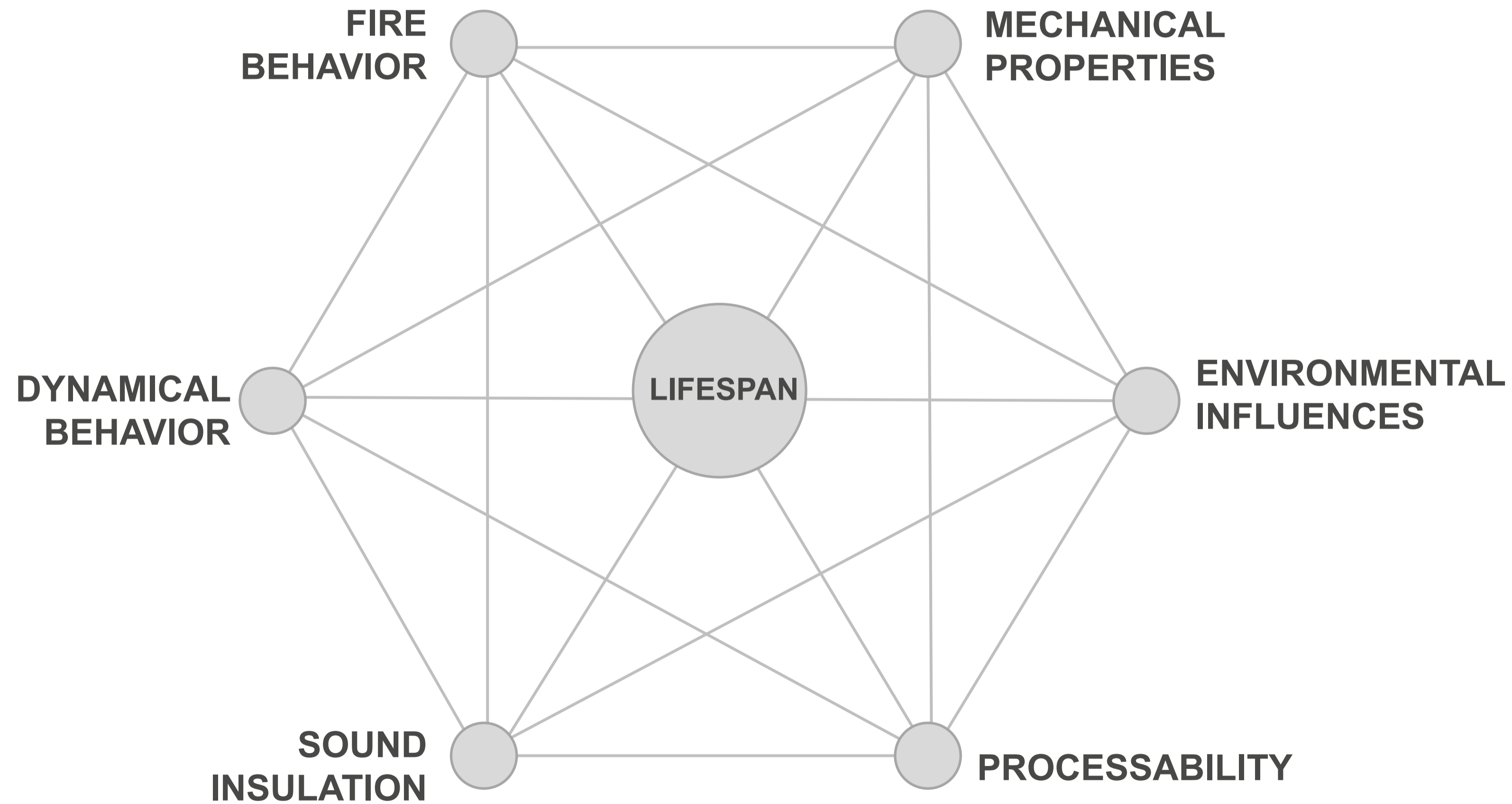


REQUIREMENTS FOR THE BELLOWS

- Connect the railway cars
- Keep the passengers dry and safe
- Fit to customer's design
- But if we look into details...

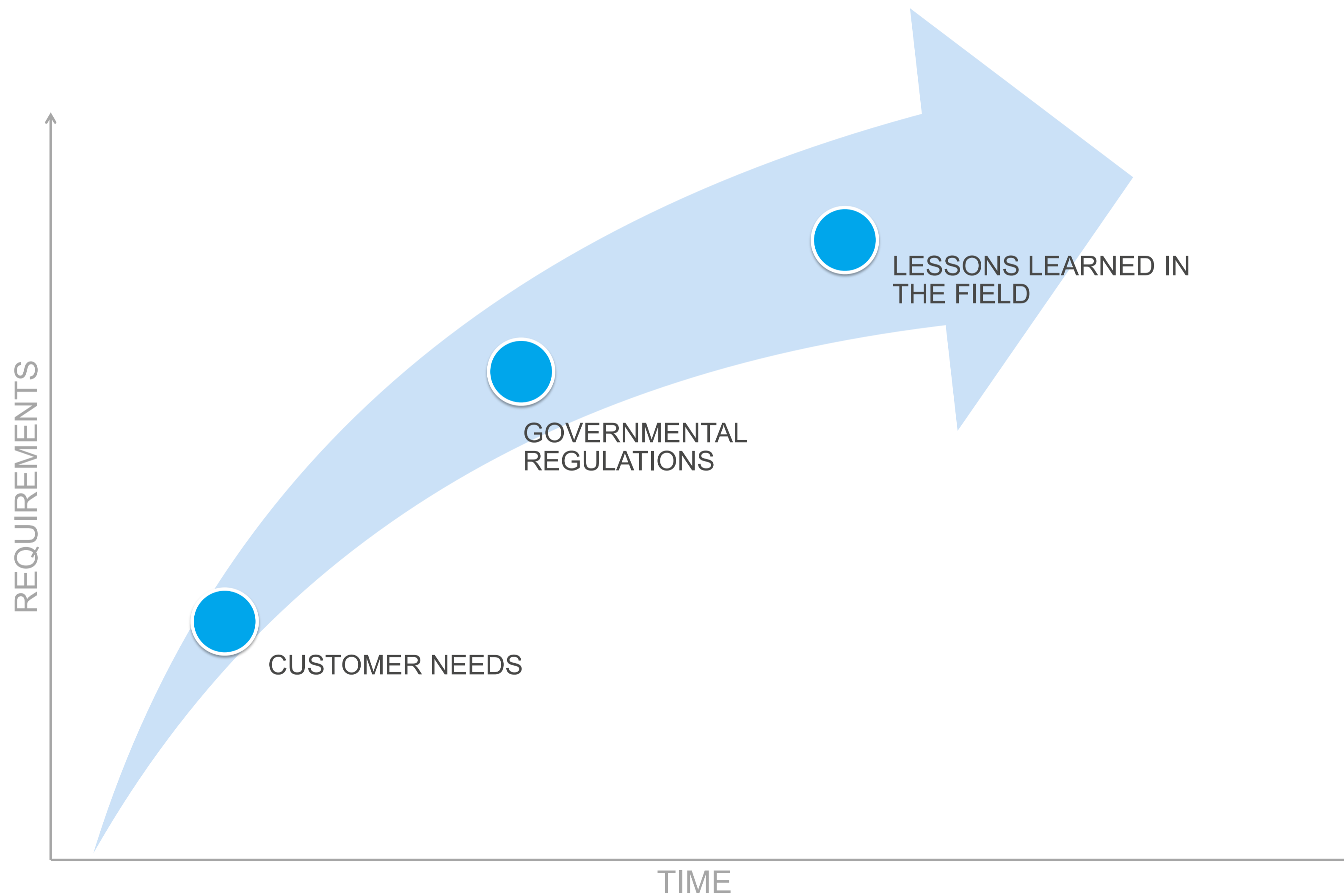


REQUIREMENTS FOR MATERIAL



REQUIREMENTS FOR MATERIAL

EVOLUTION OVER TIME



FIRE BEHAVIOR

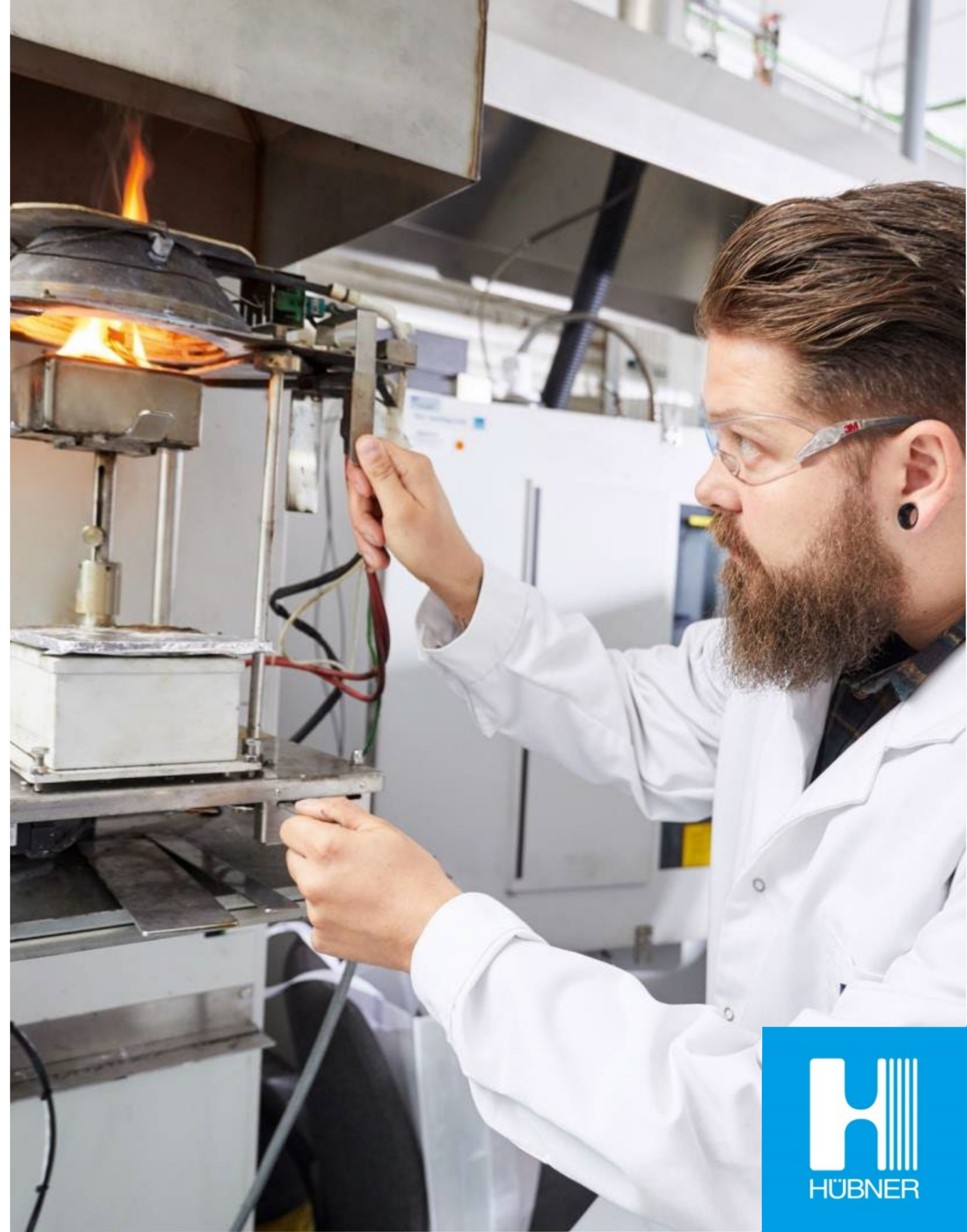
- Governmental regulations
- Mandatory
- Life and safety of passengers
- Sophisticated lab for fire testing

Rail industry: EN 45545-2/2016 (R1/7 HL1 /HL2 /HL3) ,
BS 6853 (GB), NFPA 130 (USA), NF-F 16 101 (F),
GOST (RUS), DIN 5510-2 (D), Special customer
requirements

Bus industry: ECE R118-03, Part 6, 7 and 8, FMVSS 302

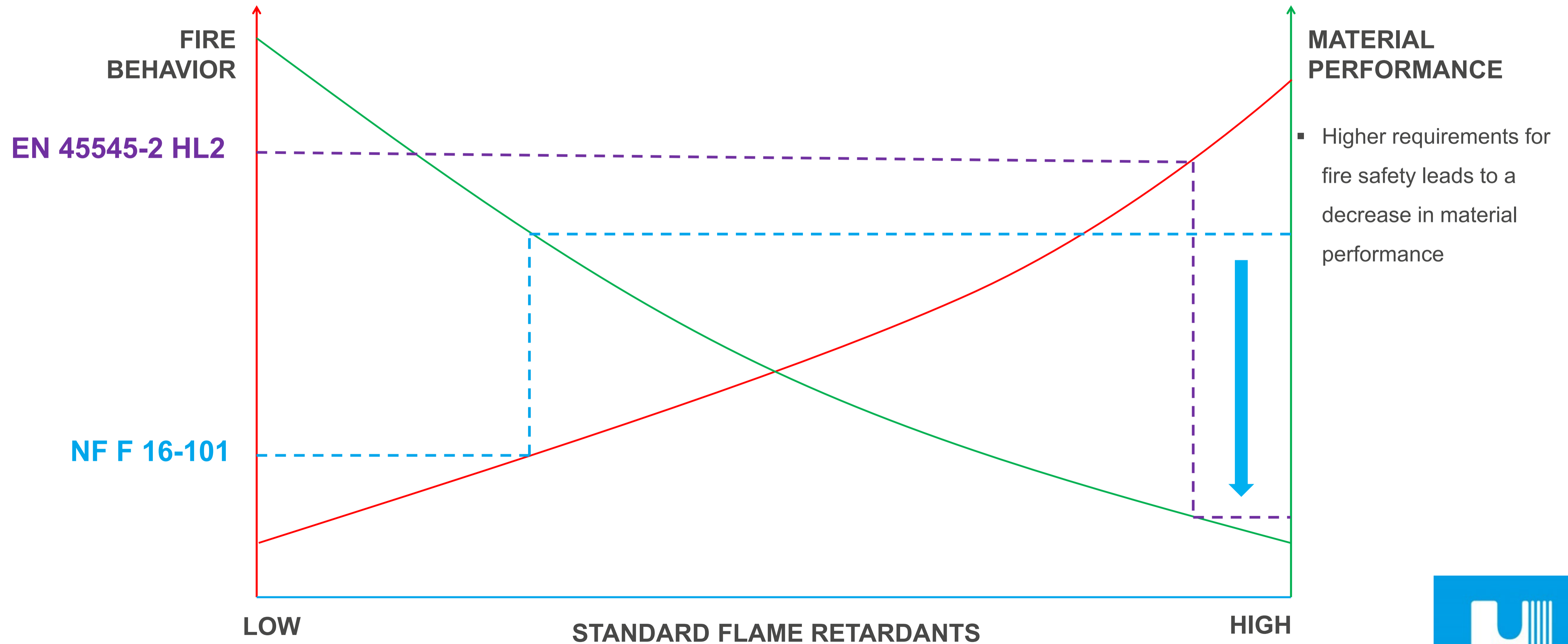
Aviation industry: AITM2 (AIRBUS), FAR-25/853

Other: UL 94H/HB/V



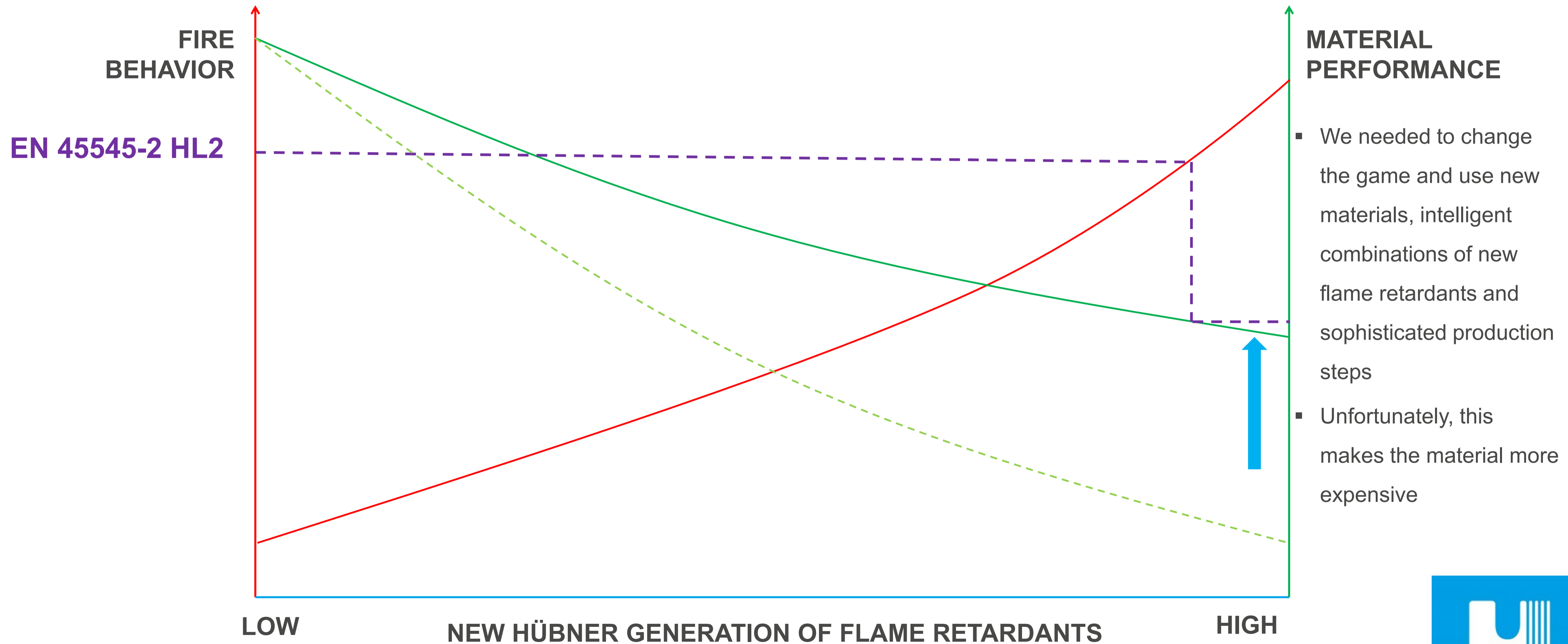
FIRE BEHAVIOR

STANDARD FLAME RETARDANTS



FIRE BEHAVIOR

NEW HÜBNER GENERATION



Thank you for your kind attention!

