Sustainable construction materials

SustainableSolutionsMatch

Welcome!

Welcome & Introduction

Who's moderating?

Justus Schuenemann

NRW.BANK (NRW.Europa)

Funding advisor

Who's organizing?

SustainableSolutionsMatch

Welcome & Introduction

Let’s play by the rules: smooth sailing for our session!

- **Mute Policy:** Please remain muted unless speaking to avoid background noise.
- **Q&A Time:** After each pitch, there will be 1–2 minutes for questions. Please use the chat to ask questions.
- **Time management**: Pitchers, please keep track of your time. We will inform you if 5 minutes have passed.
- **Technical Issues:** If you encounter issues, use the chat to notify the host.

Session Agenda

- Welcome & Introduction
- Sustainability in the construction sector
- Pitch Presentations:
  - Pitch 1: INDRESMAT (Spain)
  - Pitch 2: MycoLutions (Germany)
  - Pitch 3: REGUPOL (Serbia/Germany)
  - Pitch 4: Orbix (Belgium)
  - Pitch 5: SAM panels (Netherlands)
  - Pitch 6: ISOHemp (Belgium)
  - Pitch 7: Green Pipe SE (Sweden)
  - Pitch 8: REBARMAT (Latvia)
- Closing Remarks

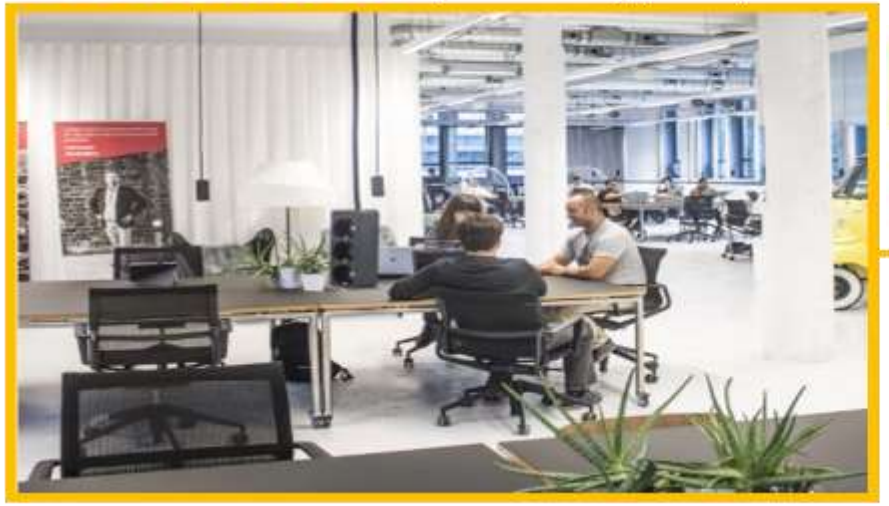
KLIMA-PUR BioPolyurethane Windows

INDRESMAT

Pablo R. Outón
Founder & CEO

INDRESMAT Story

INDRESMAT BV (Limburg, NL)



LIOF

Brightlands

Interreg

SME Instrument

HORIZON EUROPE

INDRESMAT SL (Barcelona, ES)

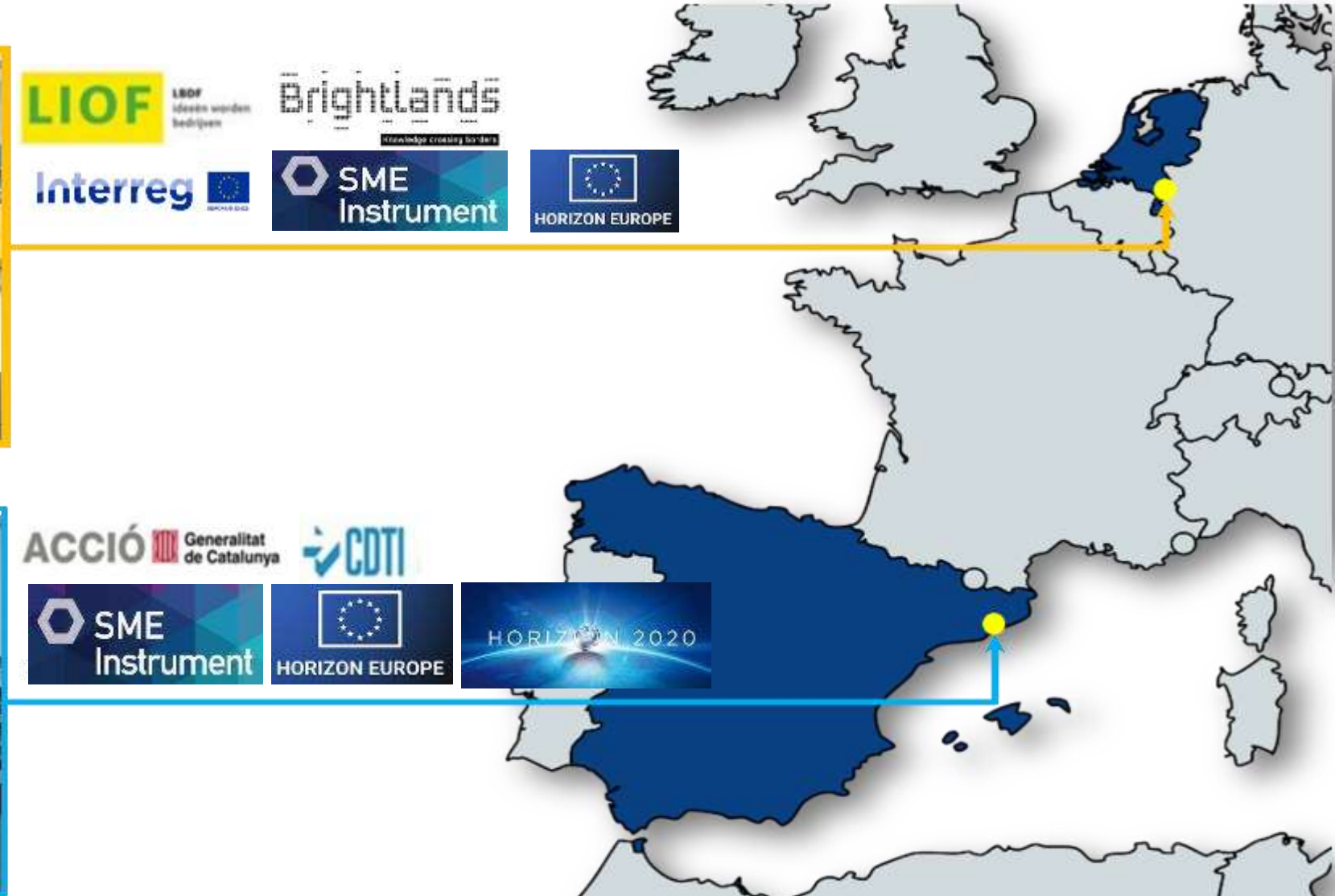
ACCIÓ Generalitat de Catalunya

CDTI

SME Instrument

HORIZON EUROPE

HORIZON 2020



INDRESMAT's Unique Know How

Vegetable oil-based formulations

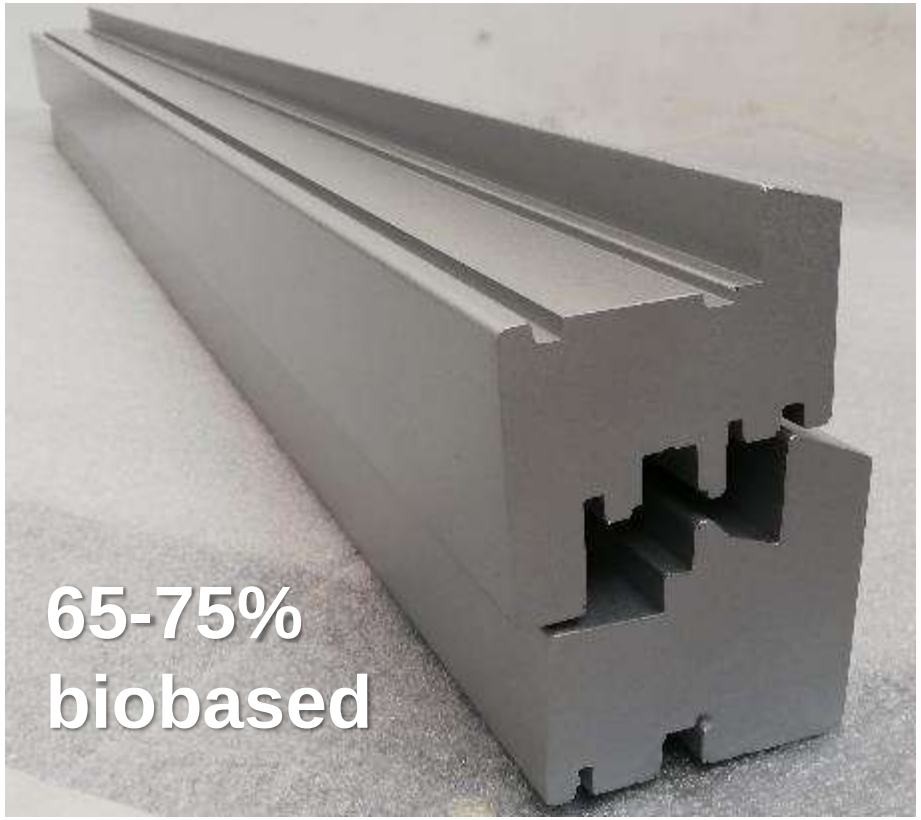
bioPUR foams
65-75% BIOBASED

High density → Structural insulating parts

Low density → Highly insulating foams

KLIMA-PUR BioPolyurethane Windows

A novel window framing material
(60 years of unchanged market)



Adaptability to Different Contexts:
Houses, Apartmentts & Offices

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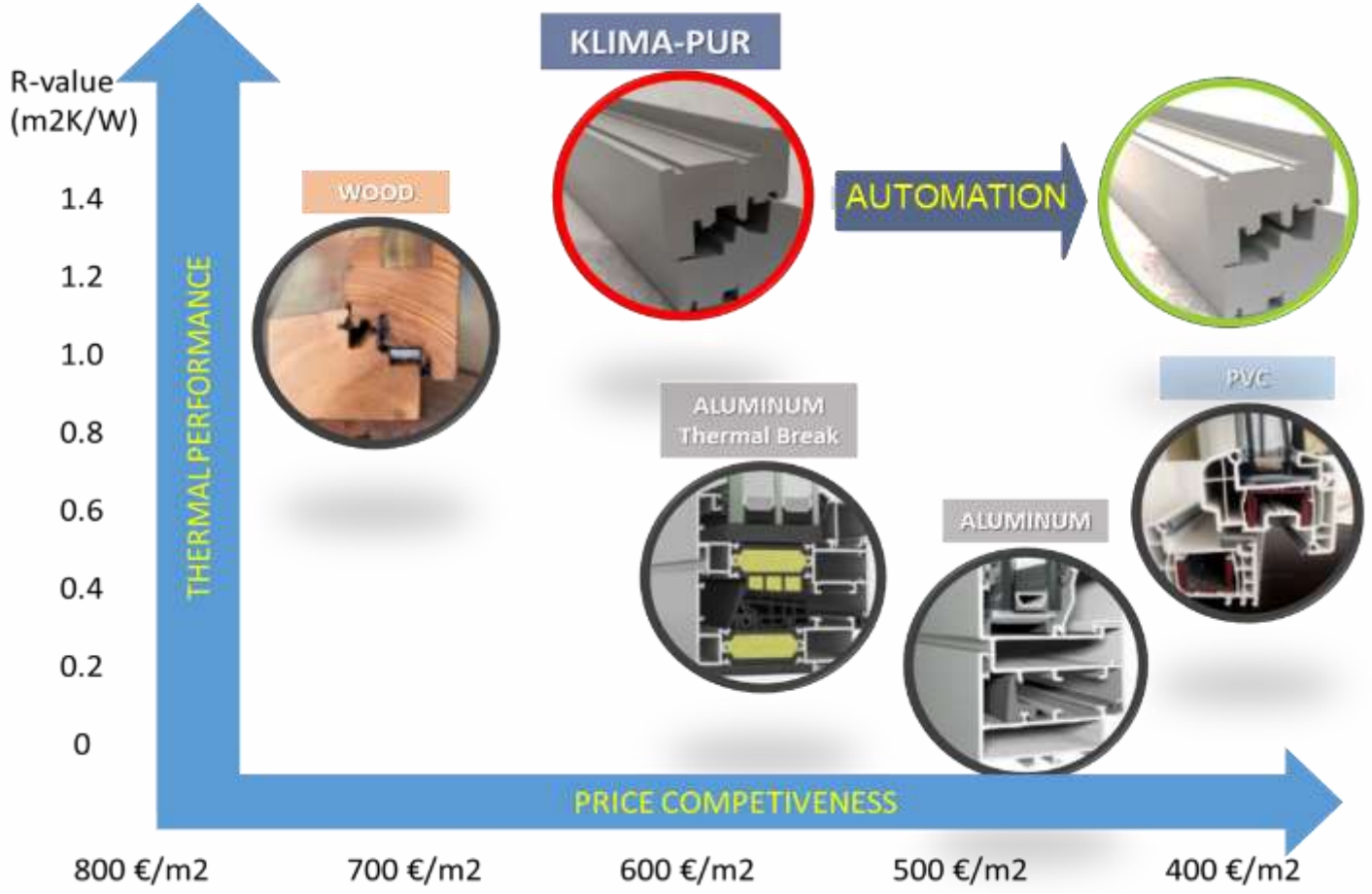
Price competitiveness



Upscalings plans in place:

- **Productivity increase**
(30 m/day ➔ 300 m/day)

- **Price reduction**
(650 €/m2 ➔ 350 €/m2)

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Patented manufacturing technology (TO BE AUTOMATED)

ENERGY EFFICIENT

10 Times less consuming than PVC

60 Times less consuming than Aluminum

EXTREMELY VERSATILE

One single manufacturing line for all possible types of window profiles

PRODUCTIVITY (to be upscaled)

Up to 300 m/day

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Value proposition

PERFORMANCE (ROI = xx years)

Energy Efficient (Uf = 0.8 W/m2K)
32% higher than best performing alternative (PVC)

Acoustic Damping (-10 dB)
55% better than best performing alternative (Timber)

Durable (30-40 years)
Similar or even longer lifespan than competitors

Lightweight (400 kg/m3)
35% lighter than lighter material (Aluminium)

SUSTAINABILITY

Low C-Footprint (180 kgCO2/kg)
- 66% lower than Aluminum
- 32% lower PVC

Circular by design (up to 100% recyclable)
Single material & easy-to-repair/reuse/recycle

Targeted customers

WINDOWS as a product

PROFILES as a product

TECHNOLOGY as a product

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Looking for...

BUSINESS OPPORTUNITIES

Construction & Real Estate Developers – Companies focused on sustainable and energy-efficient building projects

Industry Partnerships – Companies in window systems, insulation, or prefabricated building elements

Manufacturing & Processing Partners – Industrial collaborators who can help scale up production

Sustainable Material Suppliers – Partners providing bio-based feedstocks, green chemistry alternatives

Energy Efficiency & Green Building Consultants – Experts in Passive House, LEED, or BREEAM certifications

FUNDING OPPORTUNITIES

Strategic Investors & Funds – Impact-driven VCs, looking for sustainable construction materials.

Insurance & Financial Institutions – Financial actors supporting green bonds, ESG funds, or decarbonization incentives

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Book a meeting with: INDRESMAT

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Founder & CEO
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INDRESMAT

Up2Circ

enterprise europe network

Myco Lutions

Circular and healthy materials using mycelium

grown@mycolutions.de

In the EU, the construction industry causes

50 % Raw material consumption

36 % Solid waste generation

The materials used are non-circular

90% of thermal and acoustic insulation is polystyrene, mineral wool, PET and synthetic foams

Mycelium material

in comparison to polystyrene

-140 L/m^3

Water consumption

-20 %

CO2-emissions

100%

Circular

No

Toxins

Price

Competitive at scale

Mycelium innovation

Mycelium as a natural binding agent

Agricultural residues such as straw are grown through by the mycelium

The result is a stable composite material

MycoLutions Sound Absorbers

Enhanced Acoustic Comfort

Healthy Indoor Air

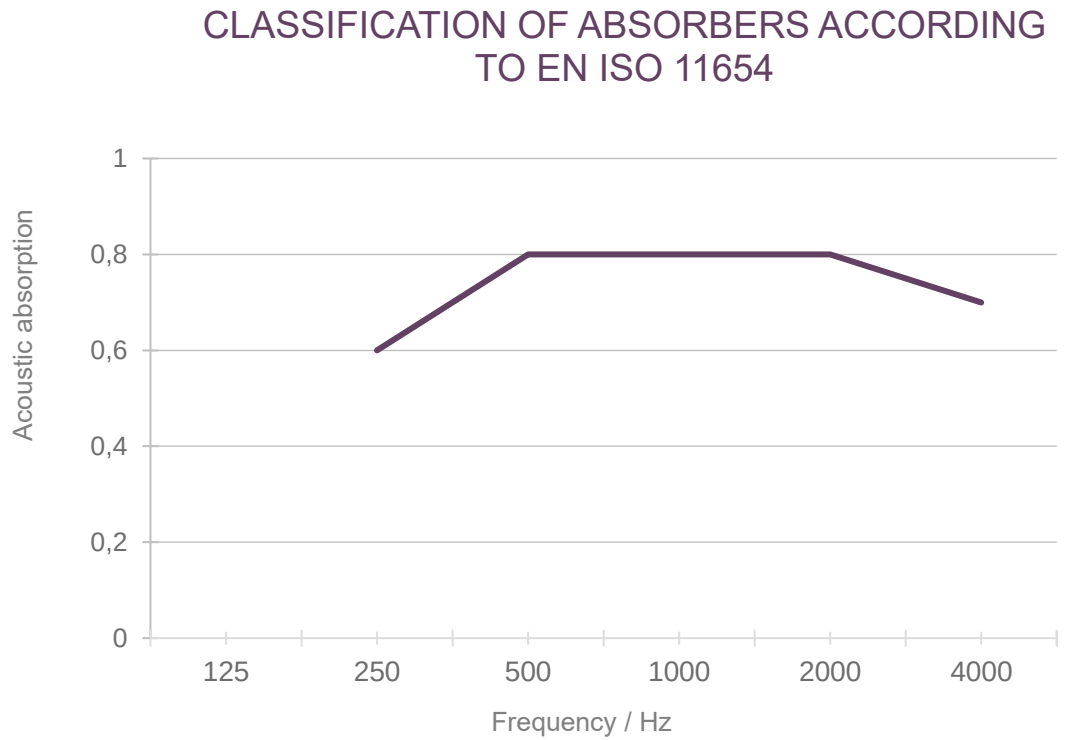
Natural Aesthetics

Low Carbon Footprint

Grown in Germany

Product properties

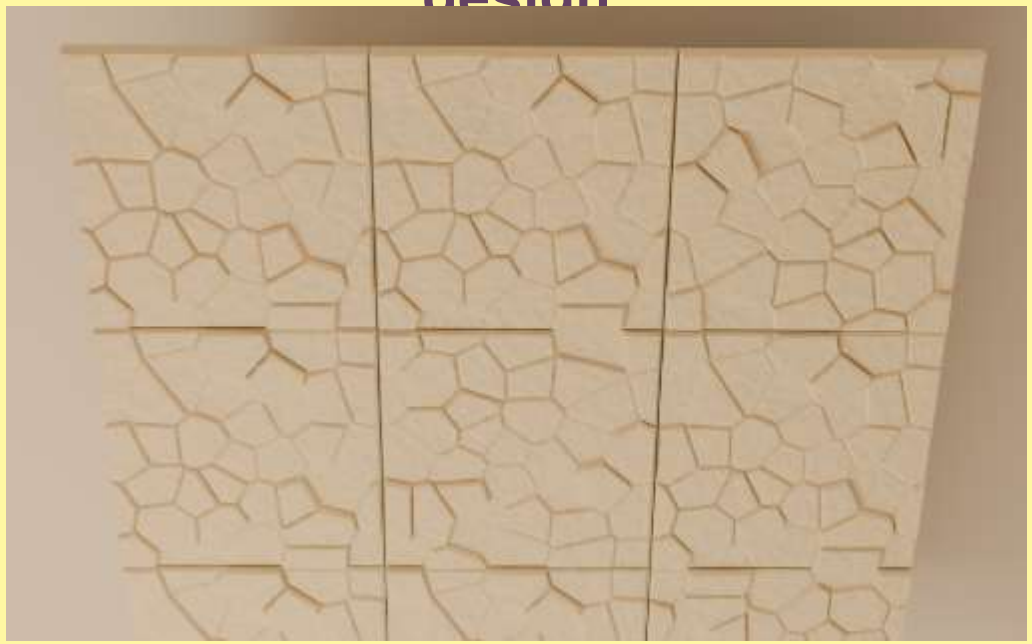
	MycoLutions	Melamine foam	PET-Fleece
Absorption			
Global warming potential			
Biodegradable			
B2C Sales price			



Absorption class B

Products and channels

Customized or standardized design



Sales partner and product realization

Germany

Netherlands

Poland

Italy

grown@mycolutions.de

40% reduction of concrete and reinforcement amounts - application of innovative rubber system wall connection INODIS

SDA-engineering RS

Marko Marinković, **PhD**
Director

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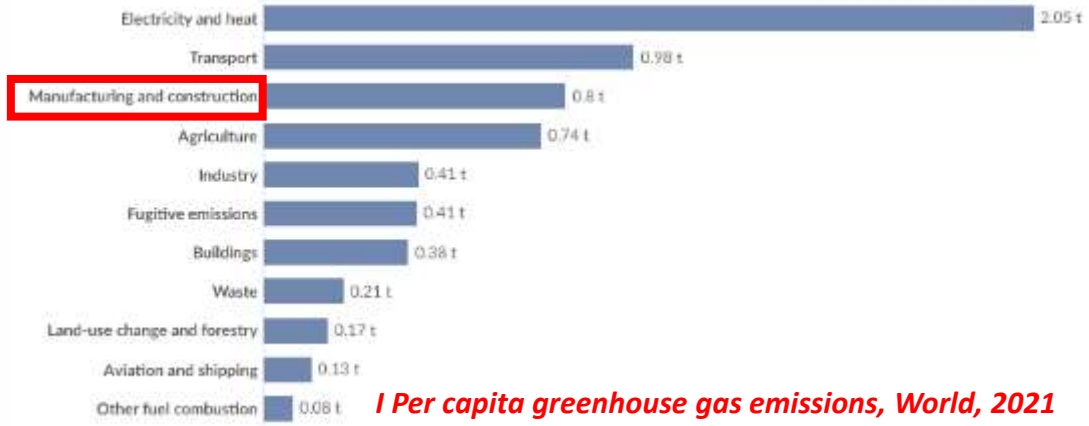
PROBLEM

I Construction is the 3rd CO2 producer



I Per capita greenhouse gas emissions, World, 2021

II Bricks/masonry during earthquake represents 1/10 of the total demolition waste

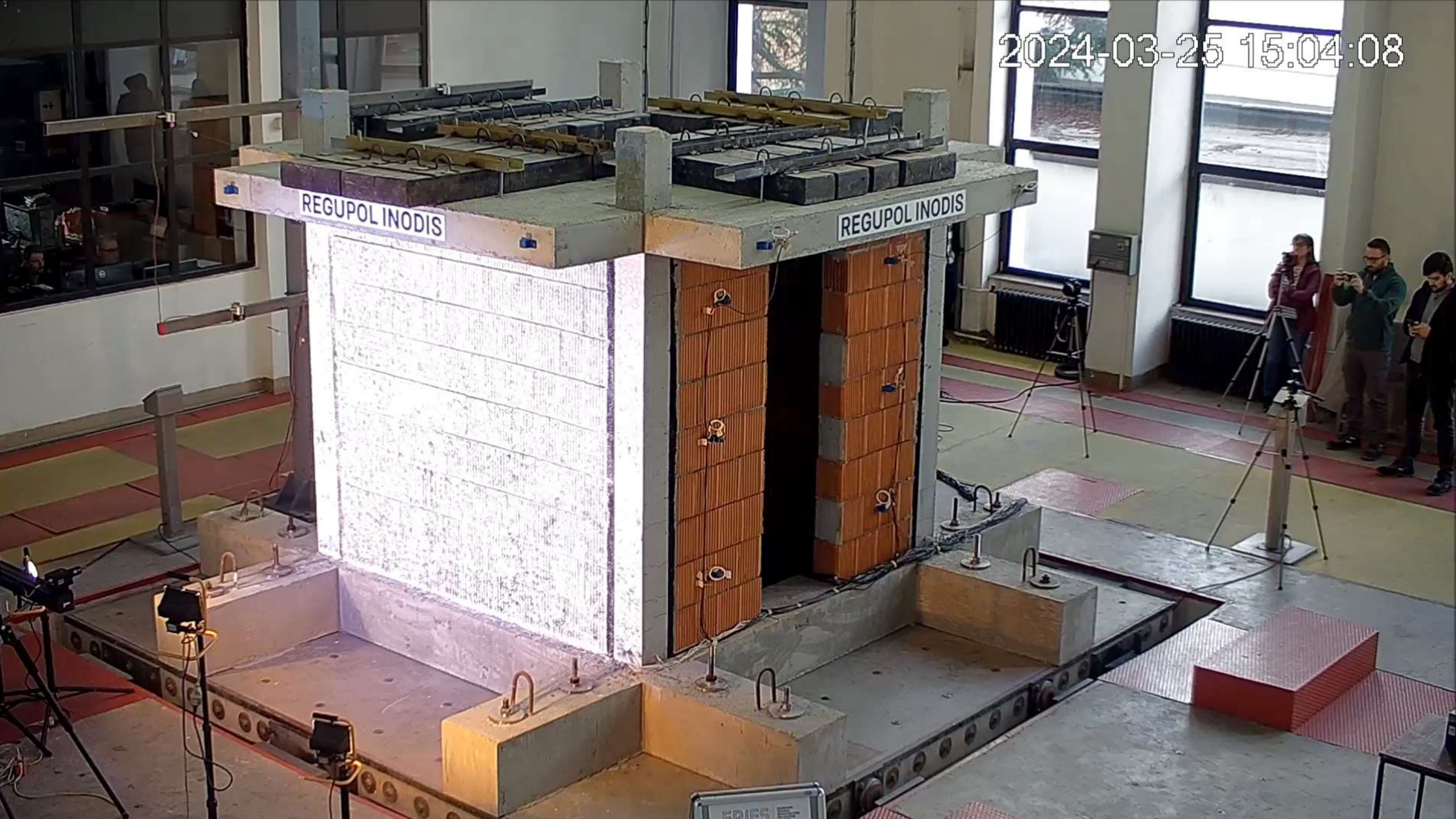
2023 Türkiye–Syria earthquake

Bricks/masonry: 10.6% of the total demolition waste estimated 13 to 20 million tons.

SUSTAINABLE SOLUTION INODIS for construction

EN 1998: 2004

40% less concrete and steel amounts	**30-40kg/m² reduction of CO2**	**30kg reduction of CO2 per capita (4%)**
Almost 0	**6 billion m2 newly built per year**	**Video**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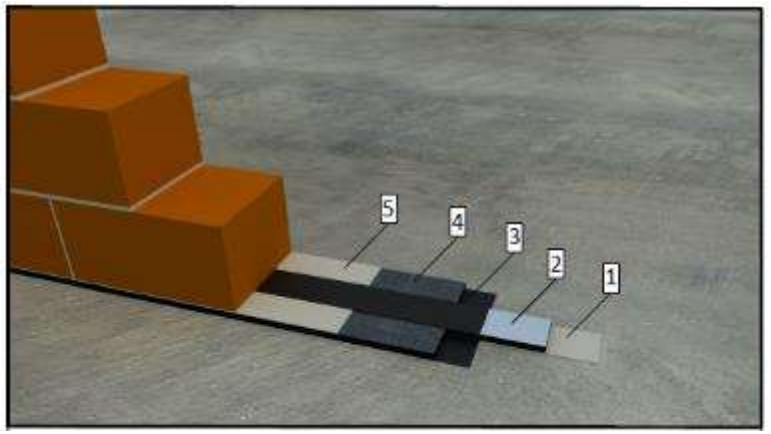
REGUPOL INODIS
REGUPOL INODIS

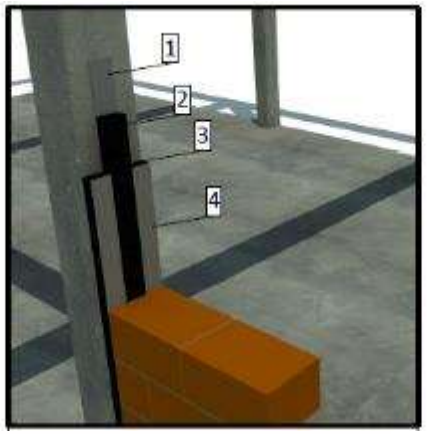
Patent No. EP3363968/2017

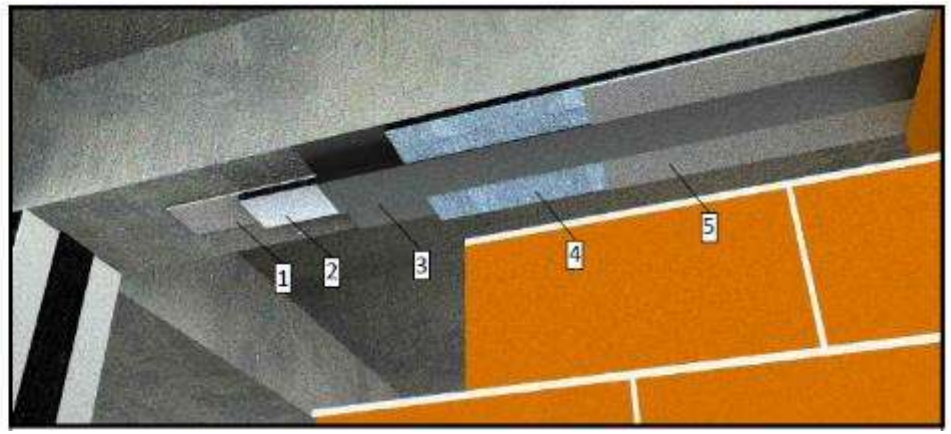
INODIS

(INnOvative Decoupled Infill System)

Recycled rubber strips

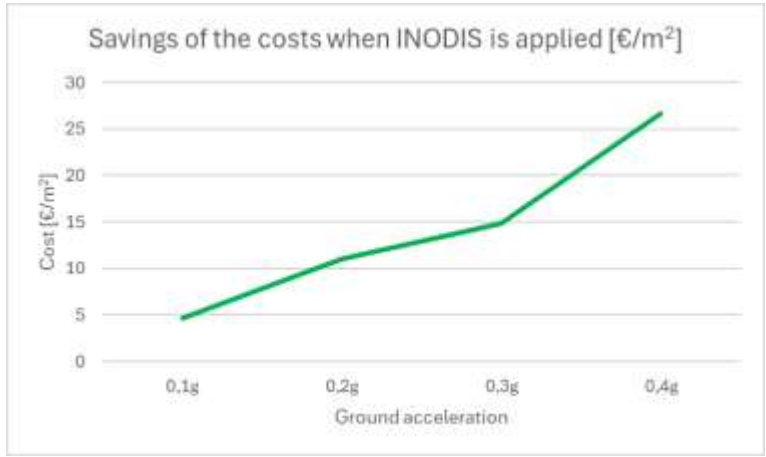






INODIS value proposition

- ✓ Reduces costs by 15-40 thousand euros taking into account concrete and reinforcement savings



INODIS sustainable impact

- ✓ 40% reduction of concrete and reinforcement amounts used in construction of a building e.g. lowering CO2 emission by 40-80 thousand kg

- ✓ Reduction of waste, since no damage occurs in masonry infill walls during earthquakes

Target audience

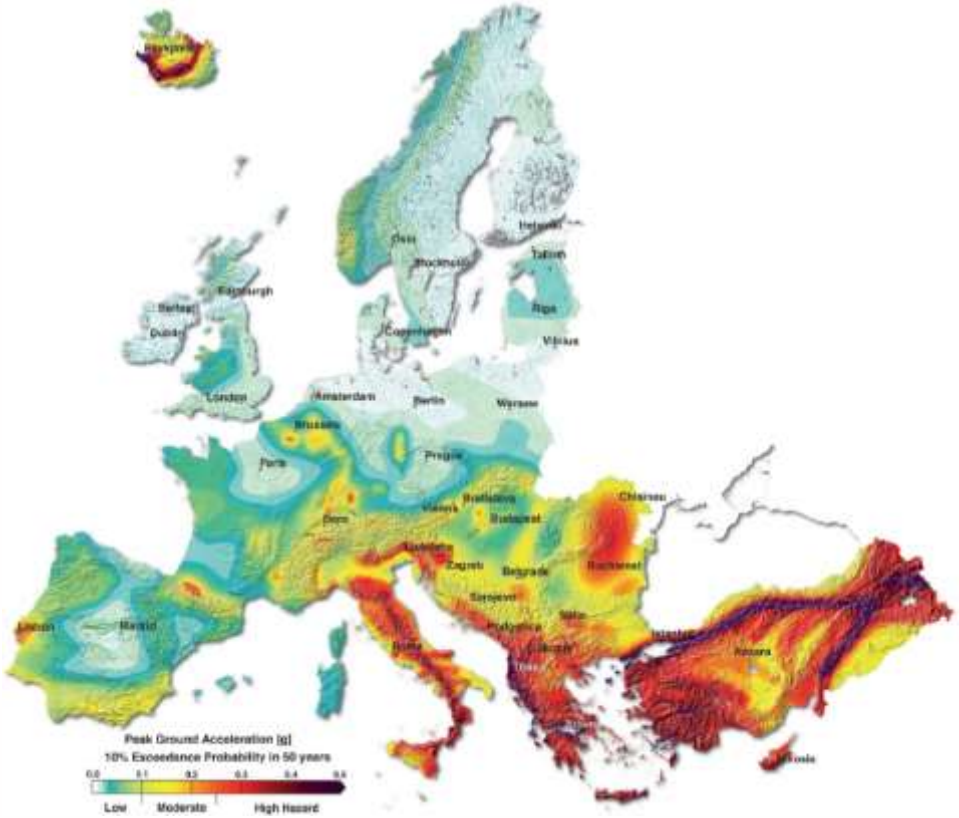
Investors → cost reduction

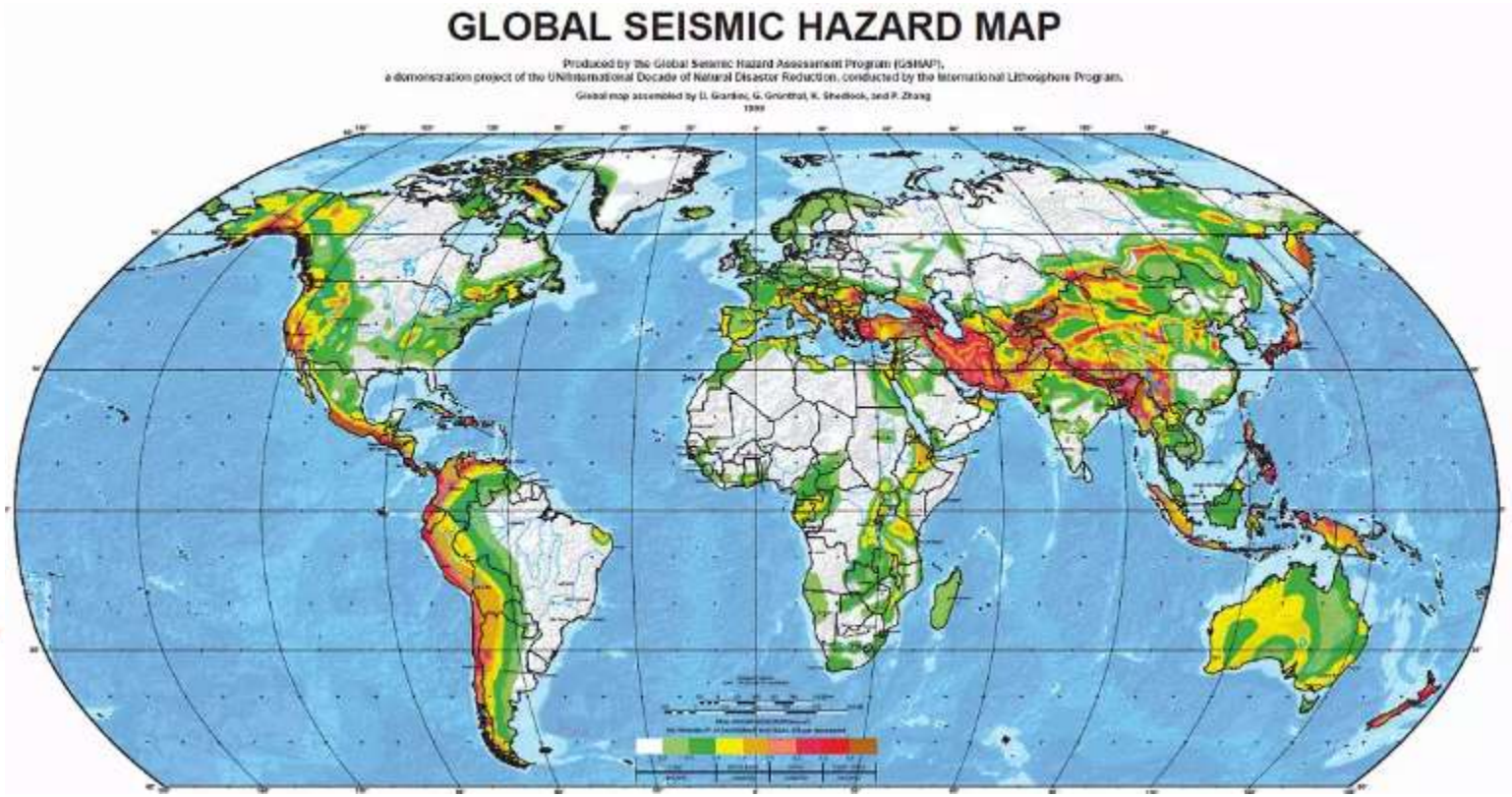
Designers → time reduction and simple design

Construction companies → faster execution

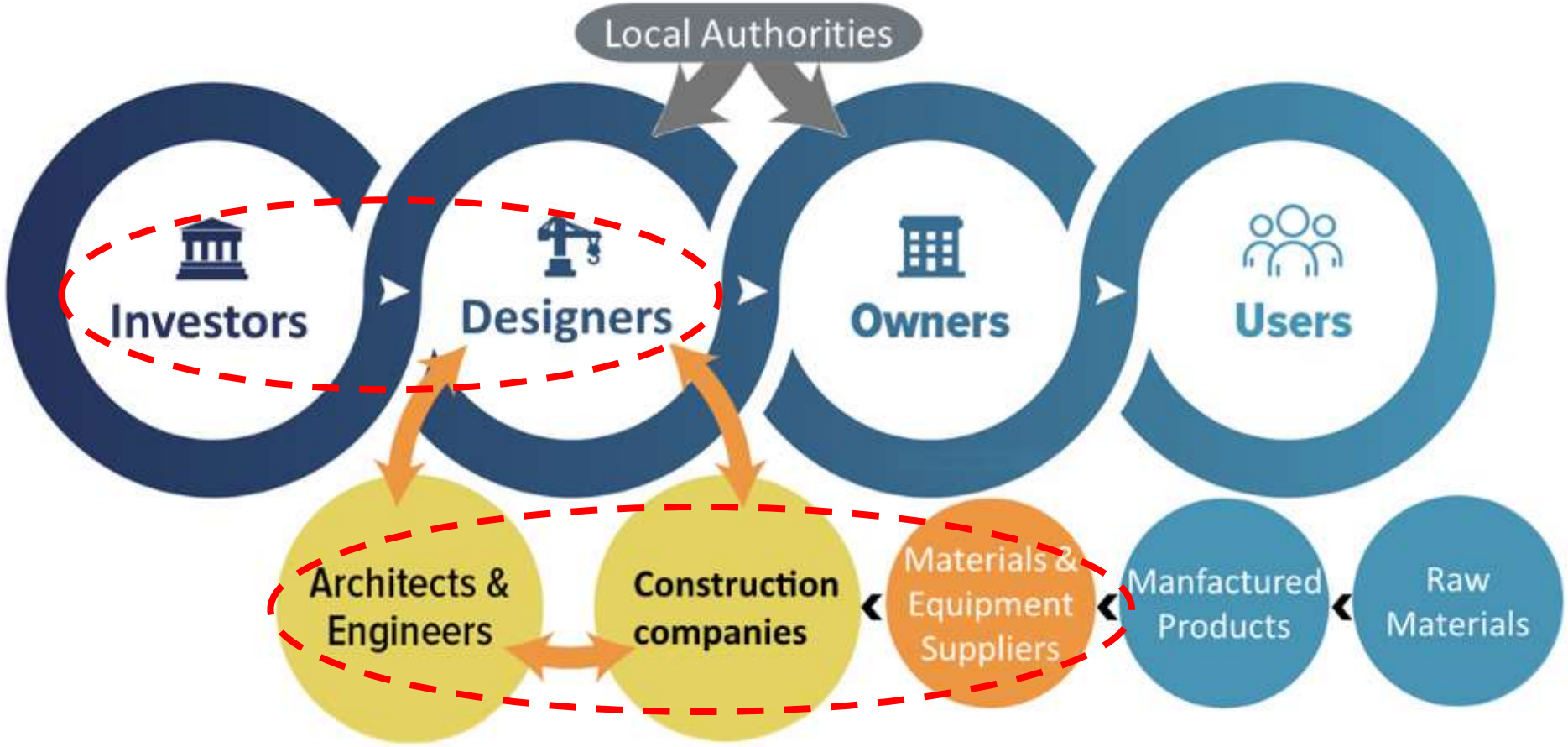
Market potential

EN 1998: 2004





Networks along the whole value chain



#EENCanHelp

Book a meeting with: SDA-engineering RS

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Remove this message:
Please ensure your presentation highlights the core aspects of your solution. You can remove the headlines. You will have 5 minutes for your pitch, make sure to stay within the timeframe!

CARBSTONE, making building materials without cement but with CO2 as binder making it CO2 negative

ORBIX BV

ANDY VANCAUWENBERGHE
SALES MANAGER

$$CaO + H_2O \rightarrow Ca(OH)_2$$

$$Ca(OH)_2 + CO_2 \rightarrow CaCO_3 + H_2O$$

We have the technology and already 3 existing plants who are *making building blocs, paving and façade bricks by replacing* cement bij slags (or other materials) and adding CO2 from industrial or waste origine.
Doing the inverse way of producing cement in a kiln

At atmospheric pressure capturing 300 kg CO2 *by* m^3

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1) Mixing granulates and sand with a carbonable materials (slags/bottom ash)

2) Shaping in a press

3) Treatment in CO2 (20-80%) environment in climate room at atmospheric pressure

4) Taking out after 24h at end strength

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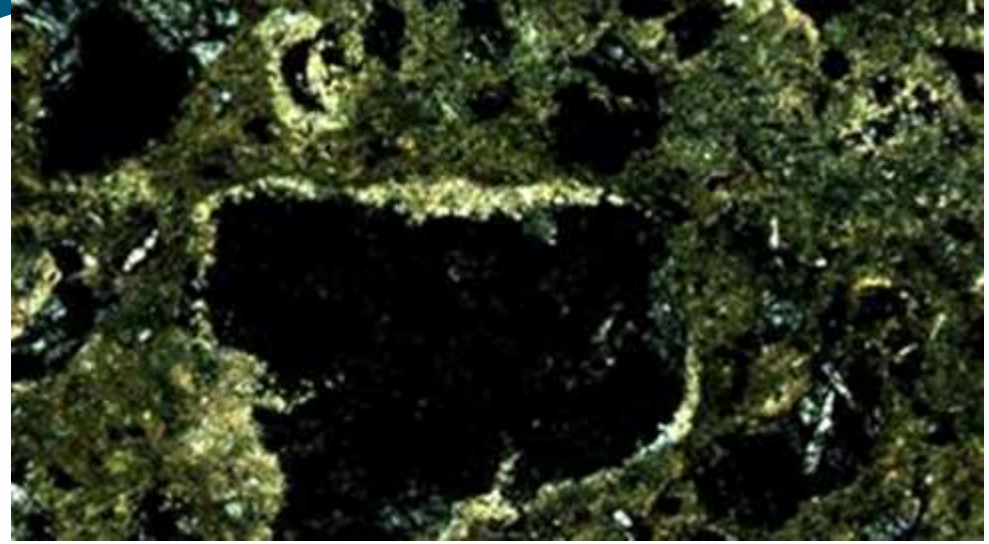

Same production plant as concrete blocs except close climate rooms
Same other raw materials as sand and granulates
Same strength as concrete blocs or paving
Same installing methods and materials as cement blocs

Ready to install at 1 day and not 28 days with cement
CO2 negative building materials materials
Slightly better thermal and acoustic isolation

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From 2014 on, testing in pilot plant in Belgium
2023 first plants running in Belgium
2025 plant in Belgium to produce façade brics
2026 plant foreseen to startup next year in Belgium using emission gasses
2028 plant foreseen in Saoudi Arabia to build blocs for the football stadia
…
Ongoing discussions to produce flooring, bathtubs, roofing tiles, … at this moment

Looking for:
- Building material producers
- under licences producing
- Testing & starting up provider
- Collaboration on production

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Sustainable and circular innovation needs good networks along the whole value chain. What kind of cooperation partners would you like to connect to beyond finding new customers?

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Book a meeting with: ORBIX

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SAM
SUSTAINABLE ADVANCED MATERIALS

Why Sam?

GREEN
100% Biobased, Circular, buy-back guarantee

PARIS PROOF
CO2-negative, no use of primary abiotic fibers

SAFE
VOC-free, no binders and glues, no formaldehyde

LOCAL
Dutch made from Dutch residual streams

Our unique process

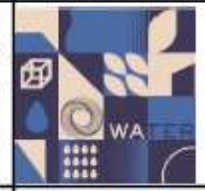
WATER
Pulp a blend of waste cellulosic fibers in recycled water

PRESSURE
Place formed fiber panels in a hot press to remove the H2O and ‘reconnect’ the cellulosic fibers

HEAT
Use waste thermal heat from the hot press to pulp the waste fiber

FIBER
Use only 100% recycled post-manufacturing, post-consumer waste fiber from Farm, Forest, Urban & Manufacturing

Product features

Properties	Testing method	Unit	SAM-Pure	SAM-Solid	SAM-Light	SAM-Watershield	SAM-Fireshield	SAM-Paint
								
Thickness	EN 325	mm	2,5	5	12	2,5	2,5	2,5
Thickness Tolerance	EN 324-1	mm	± 0,2	± 0,5	± 0,2	± 0,2	± 0,2	± 0,2
Average density	DIN 52350	kg/m^3	950 ± 50	950 ± 50	500	950 ± 50	950 ± 50	950 ± 50
Moisture Content	EN 322	%	2 tot 8	2 tot 8	2 tot 8	2 tot 8	2 tot 8	2 tot 8
Breukmodulus/Buigsterkte	EN 310	N/mm^2	35 ± 2	35 ± 2	15 ± 2	35 ± 2	35 ± 2	35 ± 2
Bending Elasticiteitsmodulus	EN 310	N/mm^2	3000 ± 200	4000 ± 500	2500 ± 500	3000 ± 200	3000 ± 200	3300 ± 200
Treksterkte	EN 310	N/mm^2	20 ± 2	23 ± 2	-	20 ± 2	20 ± 2	20 ± 2
Internal Bond	EN 319	N/mm^2	0,8	0,8	0,8	0,8	0,8	0,8
Thickness Swelling 24h	EN 317	%	60	60	50	20	60	22
Brandbestendigheid	EN 13501-1		D s1 d0	D s1d0	D s1d0	D s1d0	B S1 d0	D s1d0

Kitchen furniture

SAM


MHroadstyling
Onbegrensd in reclame.
100% POWER 50% SPEED 500 DPI

PURE Collection

SAM

LIGHT Collection

SAM

Sustainable cable protection pipes & foundations

Greenpipe Group AB

Eric Gröön
Export Manager

Innovation for a green future

Foundations

Cable protection pipes

Made in Sweden, 100% recycled PP

Sustainability in our DNA since 2001

Savings in oil
12 833 339 liter

Savings in Co2-eq
18 748 465 kg

60-80% lower environmental impact*

*According to a study performed by Swerea IVF (Swedish industrial research institute) 2015.

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Divisible cable protection pipes

100% recycled plastic & reusable
Electrical distribution – Railway – Communication – Wind

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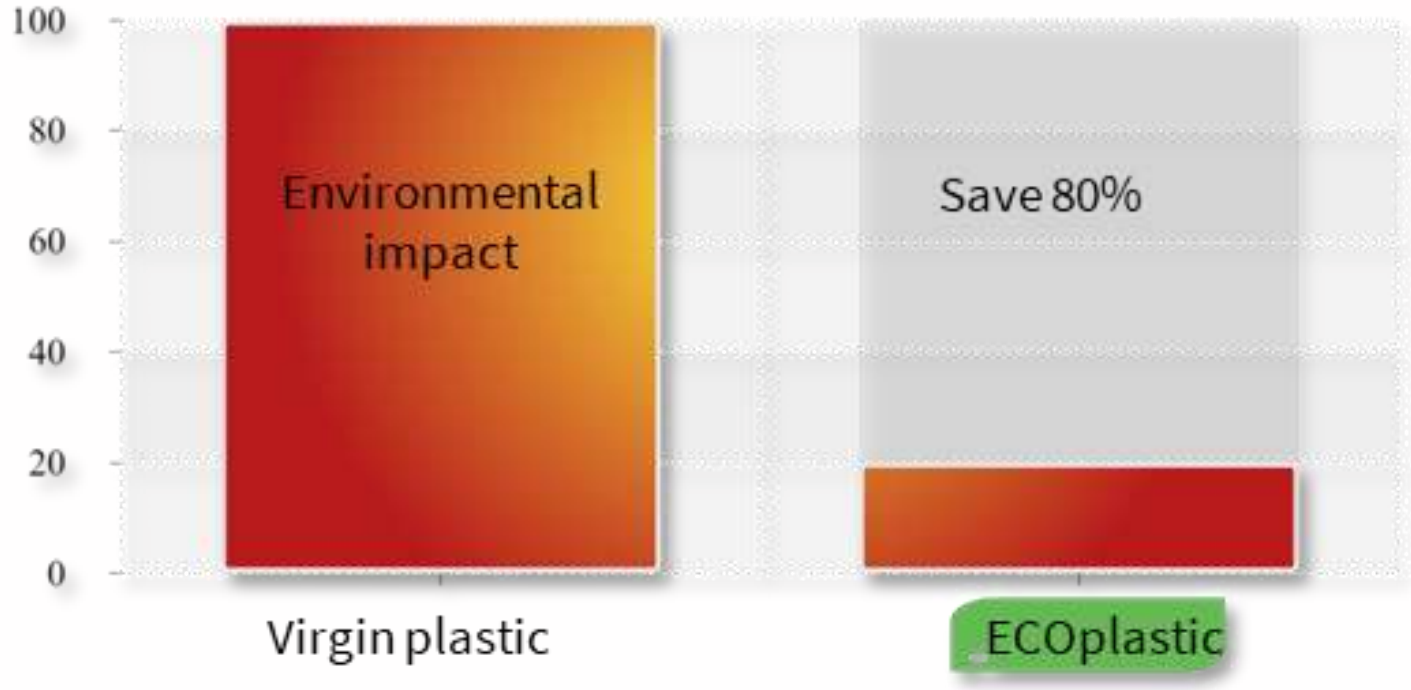
Virgin plastic vs ECOplastic from Greenpipe



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Foundations

Recycled plastic, ergonomical (15 kg instead of 150 kg) & future proof
EV-charging – Street lighting – Signs – Park furniture

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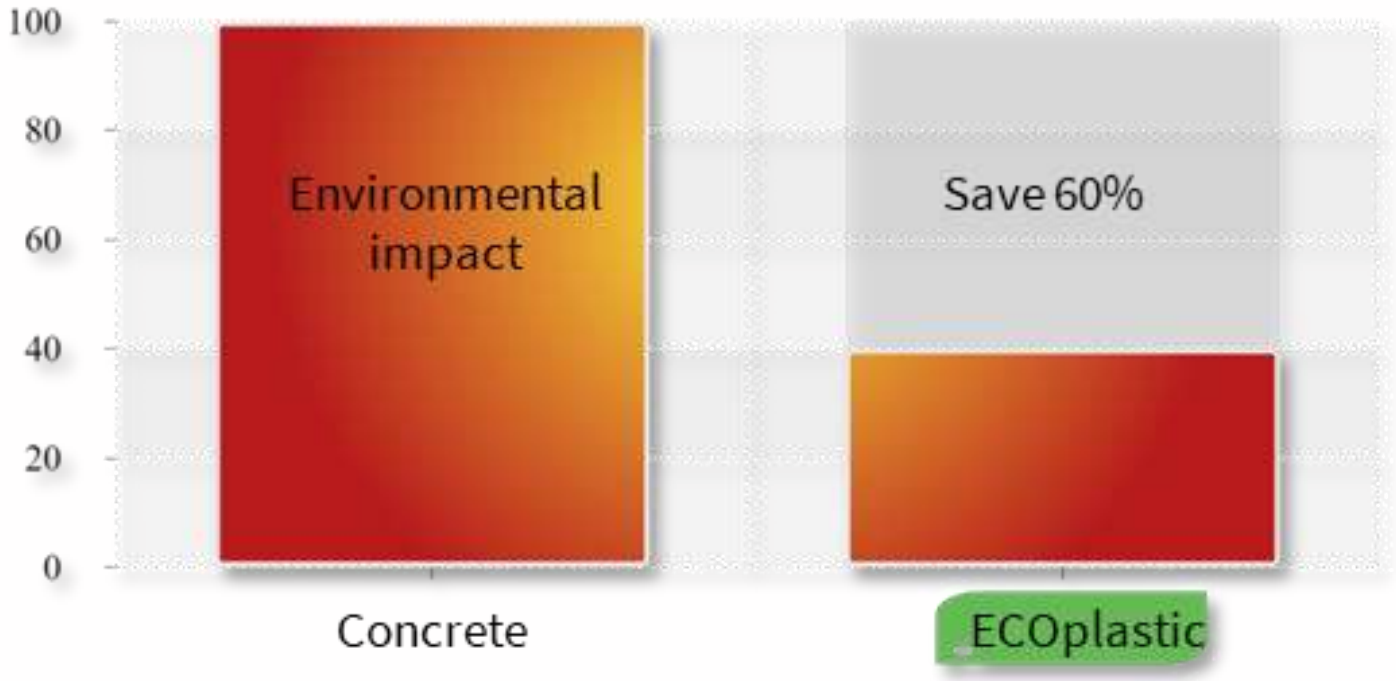
Concrete vs ECOplastic from Greenpipe



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Thank you city planners, consultants, entrepreneurs and distributors around Europe looking to improve our mutual sustainability!

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Book a meeting with Greenpipe

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Greenpipe
Innovation for a green future

Up2Circ

enterprise europe network

REBARMAT: Building Europe's Resilient Future

REBARMAT's GFRP concrete reinforcement delivers longer-lasting, sustainable infrastructure at lower cost.
We're revolutionizing how Europe builds for generations to come.

REBARMAT
composite rebar

Alise Novikova

Co-owner

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+371 29575712

“Vecozoli K-4”, Zaķumuiža,
Ropažu novads, LV-2133
Latvia

The Problem: Corrosion's Global Impact

€1T+

Global Cost

Corrosion costs the world trillions of euros annually.

€B

EU Repairs

The EU spends billions yearly on concrete structure repairs.

The Solution: **REBARMAT** GFRP Reinforcement

- 1st in Europe with EAD high standard certification.

1

Corrosion Resistant

Immune to rust and chemicals, guaranteeing 100+ year lifespan.

2

Superior Strength

4x stronger than steel, maximizing structural integrity.

3

Cost Effective

Eliminates maintenance cycles for long-term savings.

4

Lightweight Design

75% lighter than steel, reducing transport and installation costs.

REBARMAT GFRP vs Steel Rebar

Non-Corrosive

Resists rust and degradation in harsh environments, chemicals included.

Quick to Install

Lightweight design allows for faster construction times.

CO2 Neutral

Produced with renewable energy for sustainable construction.

Production process:

GFRP rebar: 0.18 vs Steel rebar: 1.8 (tons CO_2 per ton)

Properties

GFRP's light weight enables easier, safer, and cheaper shipping and handling.

Advantage

GFRP is non-conductive and non-magnetic, ideal for specific demands.

European Market Opportunity

1

EU Green Deal

Aims for climate-neutrality by 2050.

2

NextGenerationEU

€723.8 billion allocated for infrastructure renewal.

3

Low-Carbon Materials

REBARMAT aligns with CO_2-neutral production goals.

4

European Lightweight Cluster Alliance (ELCA)

Accelerates lightweight use in transport industries.

5

Fit for 55

Aims for 55% emission cut by 2030.

Market Demand for Durable Infrastructure

Europe's aging infrastructure and ambitious sustainability goals are driving unprecedented demand for innovative construction materials. With planned infrastructure investments through 2030, the market for durable, sustainable solutions is expanding rapidly.

Growing Sectors

Transportation, coastal defense, and water management projects are accelerating across Europe:

- High-speed rail networks requiring 100+ year durability
- Coastal infrastructure defending against rising sea levels
- Municipal water treatment facilities modernization
- Bridge rehabilitation programs in multiple countries

Underserved Markets

Several sectors present significant growth opportunities:

- Agricultural: Irrigation systems and storage facilities
- Marine: Ports, piers, and offshore structures
- Precast: Modular buildings and infrastructure components
- Industrial: Chemical plants and manufacturing facilities

Key Markets

Leading European nations are driving adoption:

- Germany: €86B railway infrastructure program
- France: Major coastal protection initiatives
- Nordic states: Sustainable infrastructure mandates
- BeNeLux: Marine infrastructure renovation

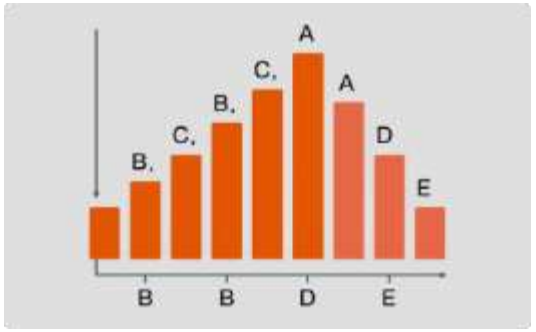
Environmental & Performance Benefits of GFRP

90% Lower Carbon Footprint

GFRP production emits only 0.18 tons of CO_2 per ton produced, compared to steel's 1.8 tons, due to the absence of energy-intensive melting processes.

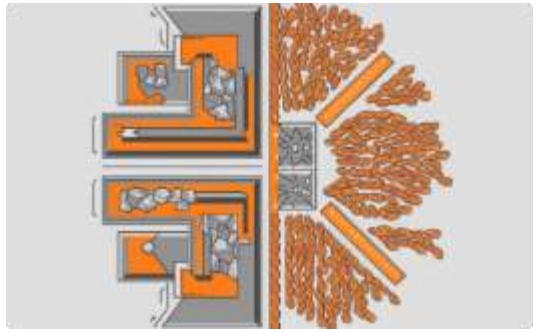
Superior Service Life

While steel elements require replacement every 20 years due to corrosion, GFRP maintains structural integrity for over 100 years without deterioration.



83% Less Energy Consumption

GFRP production requires only 3.1 MJ per kilogram compared to steel's 18 MJ, resulting in significantly lower energy consumption and environmental impact.



Simplified Recycling Process

GFRP rebars can be ground with concrete waste to create fiber-reinforced recycled concrete, supporting circular economy and easy recyclability.

Versatile Applications

Roads

Superior reinforcement for highways and bridges, delivering exceptional durability in high-traffic zones while resisting freeze-thaw damage.

Water Structures

Ideal for wastewater treatment plants, seawalls, and marine infrastructure where chemical resistance and longevity are critical.

Agricultural Structures

Robust solutions for silos, irrigation channels, and storage facilities that withstand harsh agricultural chemicals and environmental exposure.

Reconstruction of Buildings

Reinforcement solutions designed to restore and strengthen structures, reducing degradation while enhancing durability and resistance to corrosion and environmental stress.

Strategic Pricing and Market Segmentation

Our pricing strategies are tailored to reflect the unique needs of different market segments, ensuring competitiveness and long-term value for all stakeholders.

End Clients

Competitive pricing focused on long-term cost savings, durability, and sustainability. Our corrosion-free GFRP solutions eliminate costly maintenance cycles while delivering superior lifecycle value.

Distributors as Solution Partners

Tiered pricing based on volume, exclusivity, and market penetration. Benefits include co-marketing support, supply chain optimization, and flexible credit terms.

Builders and Contractors

Scale-based pricing with multi-segment incentives. Quick installation advantage contributes to operational efficiency and cost reduction across infrastructure projects.

State and Institutional Programmes

Customized pricing for government and EU-supported initiatives, with full documentation and compliance for Green Deal and NextGenerationEU infrastructure investments.

Comprehensive Client Support

We believe that long-term partnerships require ongoing support that empowers clients to succeed. Our integrated support journey includes:

1. ## Foundation: Training Programs

   Structured guidance and hands-on sessions with engineers for distributors, builders and sales professionals.

2. ## Implementation: On-Site Visits

   Personalized consultations and training at distributor locations and key sales centres, optimizing implementation.

3. ## Continuous Learning: Professional Knowledge Sharing

   Regular trade show participation, keeping clients informed of the latest innovations in sustainable construction materials.

4. ## Growth Support: Sales Enablement Tools

   Comprehensive guidance including technical documentation, benefit analysis and co-branded promotional campaigns.

Stronger. Safer.
Built to Last.

> Invisible beneath it all, REBARMAT GFRP rebars quietly protect what matters most.

REBARMAT is setting new standards in building driveways, patios, sidewalks, curbs, industrial floors, parking lots, and many other concrete structures that surround us.

We come at the right time!

Alise Novikova

Co-owner

alise@rebarmat.com

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“Vecozoli K-4”, Zaķumuiža,
Ropažu novads, LV-2133
Latvia

Closing Remarks

A big thank you to all pitchers and attendees!
We appreciate your participation today.

If you'd like to connect with any of the pitching companies, please use the matchmaking tool to **book a meeting**!

Need support? **Enterprise Europe Network is here to help!**

Reach out to your local Network partner:

https://een.ec.europa.eu/local-contact-points

#EENCanHelp

Thank you!

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