



INSTITUTE OF BLAST & IMPACT PROOF CONCRETE

FRANCHISING

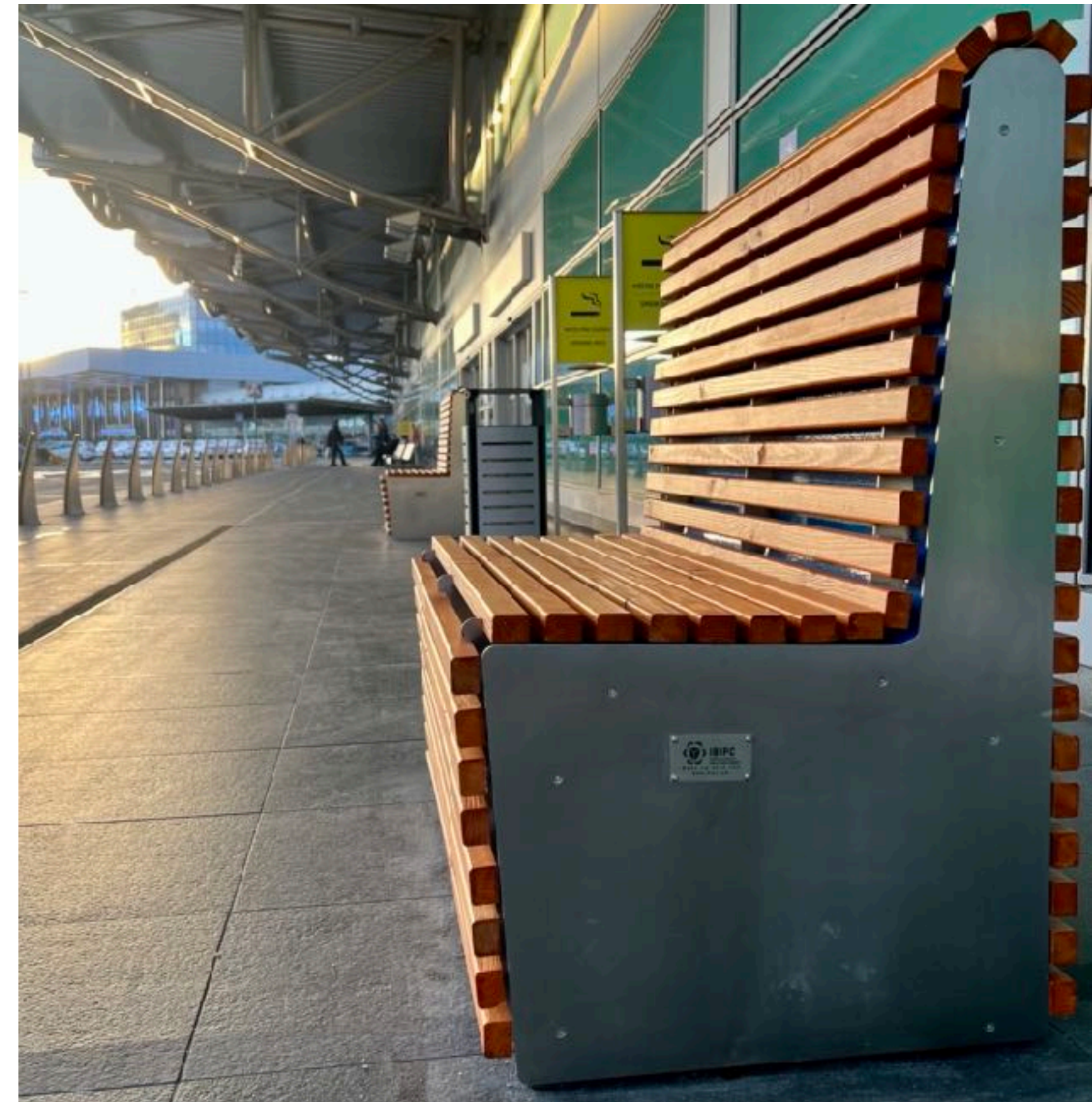
Made to save you



ABOUT US



- Development of specific protective elements.
- Including test **protocols and certifications** by the Military Research Institute (MRI) of the Czech Republic.
- State Testing Laboratory of the Czech Technical University in Prague.
- Our elements are made from patented Ultra High Performance Fiber Reinforced Concrete - **UHPFRC**.
- They provide protection for **Defence Industry, Critical Infrastructure and Civil Defence**.
- Potential to use unique **know-how and hi-tech products** through licence - **FRANCHISE**.



SUMMARY OF THE EU COUNCIL DIRECTIVE



EUROPEAN PARLIAMENT AND COUNCIL DIRECTIVE (EU) 2022/2557

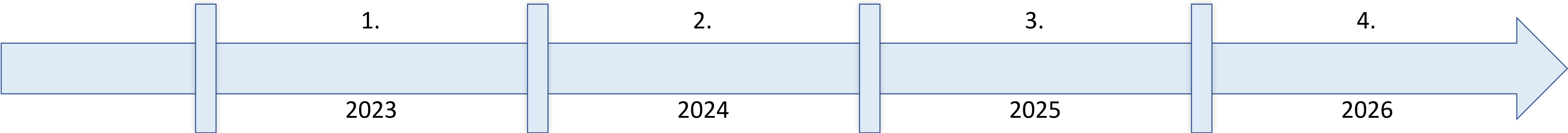
- Addresses providers of **critical services**.
- Defines resistance/resilience of critical assets to all types of threats (uniform rules across the EU).
- Critical entities will be monitored on their compliance with a **Resilience Plan** based on a **risk assessment** that is updated periodically or as required.
- **Critical entities** will strengthen their capabilities to prevent, **protect themselves**, respond to and withstand incidents, **mitigate, absorb, adapt and recover** from the consequences.
- Possible support from the State or the EU.

- | | | |
|------|----|---|
| 2023 | 1. | Preparation for the implementation of the Directive. |
| 2024 | 2. | Acceptance of the measures of the Directive. |
| 2025 | 3. | Strategy to strengthen the resilience of critical infrastructure. |
| 2026 | 4. | Submission of a report to the European Parliament. |

INSTITUTE OF BLAST & IMPACT PROOF CONCRETE

- A. Prepared an analysis on the implementation of the Directive.
- B. Has a capacity of scientists, experts and specialists.
- C. Has developed unique security features to protect CI.
- D. It is ready to participate in the CI solutions of European countries.

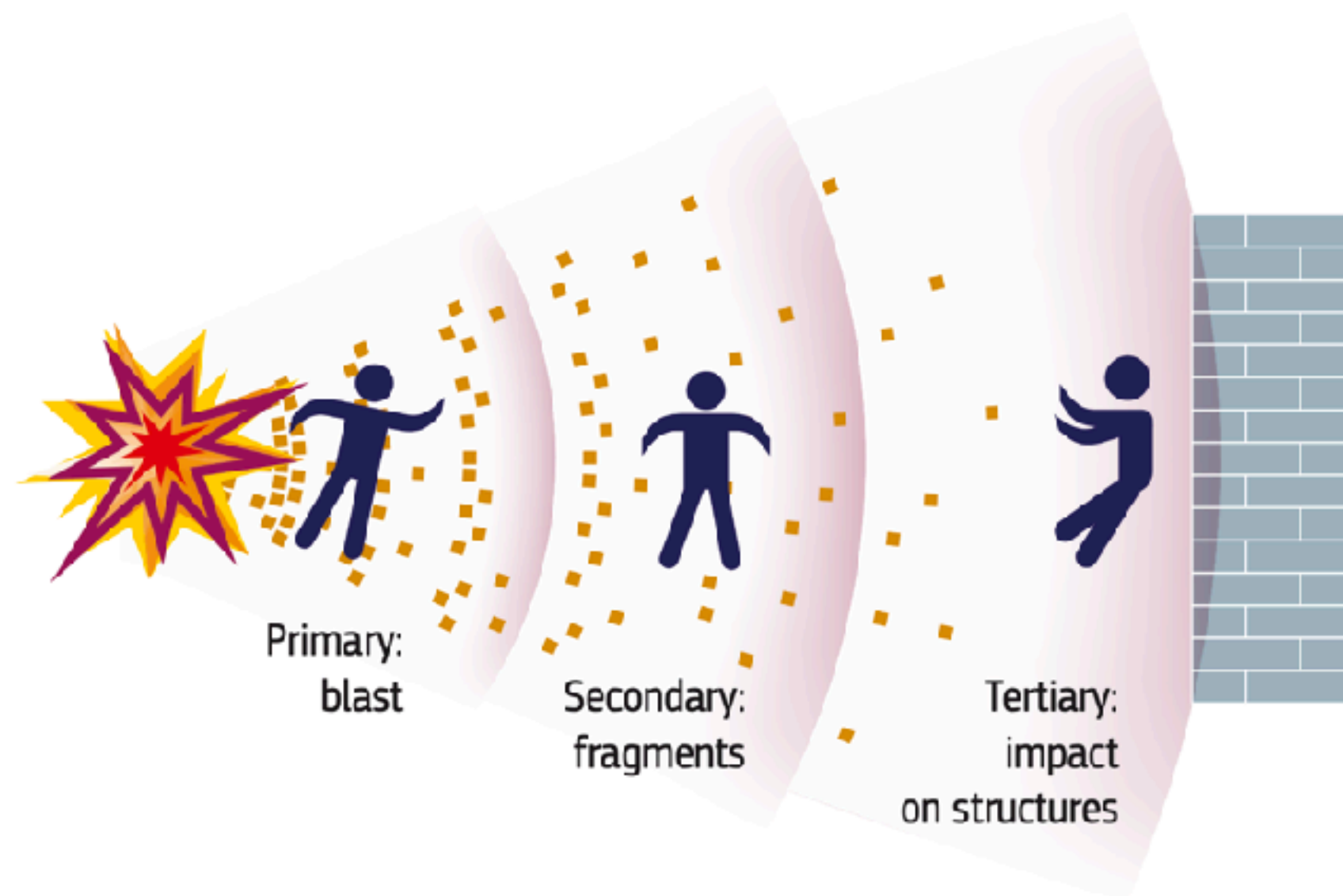
Implementation plan for the new directive



SECURITY BY DESIGN



Our elements are developed in accordance with the guidelines of the European Commission's Joint Research Centre for Scientists, Experts and Academics "Security by Design: Protecting Public Spaces from Terrorist Attacks", which introduces the concept and practical implementation of building security in the design.



NATO STANAG STANDARD



By NATO standard

- Composite safety features at a high level of durability.
- Made of patented salinity-resistant UHPFRC.
- According to the military standard NATO STANAG 2280, used for all protective structures built during military missions.



Ballistic resistance A5
Shrapnel resistance C4
Blast resistance D6

		A	B	C	D	E
		Projectiles ¹	Direct Fire Warheads ³	Indirect Fire Munitions ^{3,4}	High Explosives (TNT Eqvt)	Moving Vehicles ⁵
Severity of Effect (level) ⁷	9				≤ 5,000kg	
	8	120/125mm SABOT Anti tank	Anti-tank 120/125mm HESH / HEAT	Scud	≤ 1,000kg	
	7	Automatic cannon 40mm APDS		333mm Rocket	≤ 250kg	
	6	Automatic cannon 30mm APDS	Advanced ASM Anti Structure Munitions	240mm Rocket	≤ 50kg	Tracked Vehicle
	5	HMG 14.5mm (0.57)	Tandem ASM	155mm Artillery 122mm Rocket	≤ 10kg	Large Truck ≤ 32,000kg
	4	HMG 12.7mm (0.50)	Anti-personnel Thermobaric or conventional charge <2.5kg	120mm Mortar 107mm Rocket	≤ 2kg	Truck ≤ 7,500kg
	3	Assault /Sniper Rifle 7.62mm AP	Anti-tank Shaped charge	82mm Mortar	≤ 1kg	Small Truck ≤ 2,500kg
	2	Assault Rifle 5.56 - 7.62mm Ball	40mm Rifle grenade shaped charge	60mm Mortar	≤ 0.5kg	Passenger Car ≤ 1,500kg
	1	Pistol	(reserved)	Hand grenade	≤ 0.1kg	Motorcycle

PROTOCOLS AND CERTIFICATIONS



By NATO standard

Ballistic resistance

Shrapnel resistance

Blast resistance

A5

C4

D6

- Fulfillment of the principle of legitimate expectations.
- Ballistic, blast and shrapnel resistance.
- Tested and certificated by the Military Research Institute s.e.



ODBOBNÁ LABORATOR OL 133

telefon: 224 354 627

email: josef.fladr@fv.vut.cz

Počet výtisků: 5

Výtisk č.: 1

Počet listů: 3

List číslo: 1

Počet příloh: 0

Počet listů příloh: 0

Zakázkové číslo: 8602152.A000

PROTOKOL číslo: 133 003/2021

o zkoušce:
STANOVENÍ PEVNOSTI BETONU V TLAKU 133/3

Jméno a adresa zákazníka:

JEAN-PAUL WHITECASTLE, spol. s r.o.
Kaprova 42/14
110 00 Praha 1
IČ: 48041866

Datum vystavení protokolu: 17. 12. 2021



Schválil: doc. Ing. Josef Fládr, PhD., technický vedoucí OL 133

Fládr
podpis



Vojenský výzkumný ústav, s. p.

Počet stran / Number of pages: 10
Datum vydání / Date of issue: 31. 5. 2022

PROTOKOL O ZKOUŠCE BALISTICKÉ ODOLNOSTI TEST REPORT BALISTIC RESISTANCE

VVÚ – SM-22-101

Zadavatel Contractor	JEAN PAUL WHITECASTLE, spol. s r.o. Kaprova 42/14 110 00 Praha 1 – Staré Město	
Výrobce Manufacturer	INSTITUT BLAST & IMPACT PROOF CONCRETE, s. r. o. (IBIPC) Jihlavská 2512/34, 591 01 Žďár nad Sázavou	
Předmět zkoušky Test specimen	UHPFRC vzorky 01 a 02 UHPFRC samples 01 and 02	
Datum a místo zkoušky Date and place of the test	10. 5. 2022, Prototyp-ZM, s. r. o., Brno	
Metoda zkoušení Test method	STANAG 2280, Edition 1	
Zkoušku provádí Test staff	Petr Fěchouček	
Odpovědný pracovník Leader of the test	Petr Fěchouček	
Účastníci zkoušky Participants	Pavel Čalkovský Tomáš Molik Pavel Bělohradský	VVÚ, s. p. VVÚ, s. p. CEO JFW GROUP

Protokol o zkoušce nesmí být bez písemného souhlasu zkoušebny reprodukován jinak než celý.
The test report shall not be reproduced except in full, without written approval of the test laboratory.

Protokol vyhotovil: Pavel Čalkovský
The test report was written by Pavel Čalkovský



CRITICAL INFRASTRUCTURE



By NATO standard

We produce 10 NATO STANAG 2280 certified safety elements to protect against:

- Terrorist attack or sabotage
- Hybrid attack
- Attack by professional army

This includes professional installation and regular servicing.

We focus on objects that are important from a political, military or economic point of view for ensuring the protection for **basic functions of the state** and the security of the armed forces.

Ballistic resistance
Shrapnel resistance
Blast resistance

A5
C4
D6



DEFENCE INDUSTRY



By NATO standard

Ballistic resistance
Shrapnel resistance
Blast resistance

A5
C4
D6

We provide protection during combat missions.

Our elements are **buying time** to control the perimeter of interest to **protect lives** of soldiers and civilians in key situations.

Ability to **react quickly** to defined threats in case of national emergency and war.



CIVIL DEFENCE

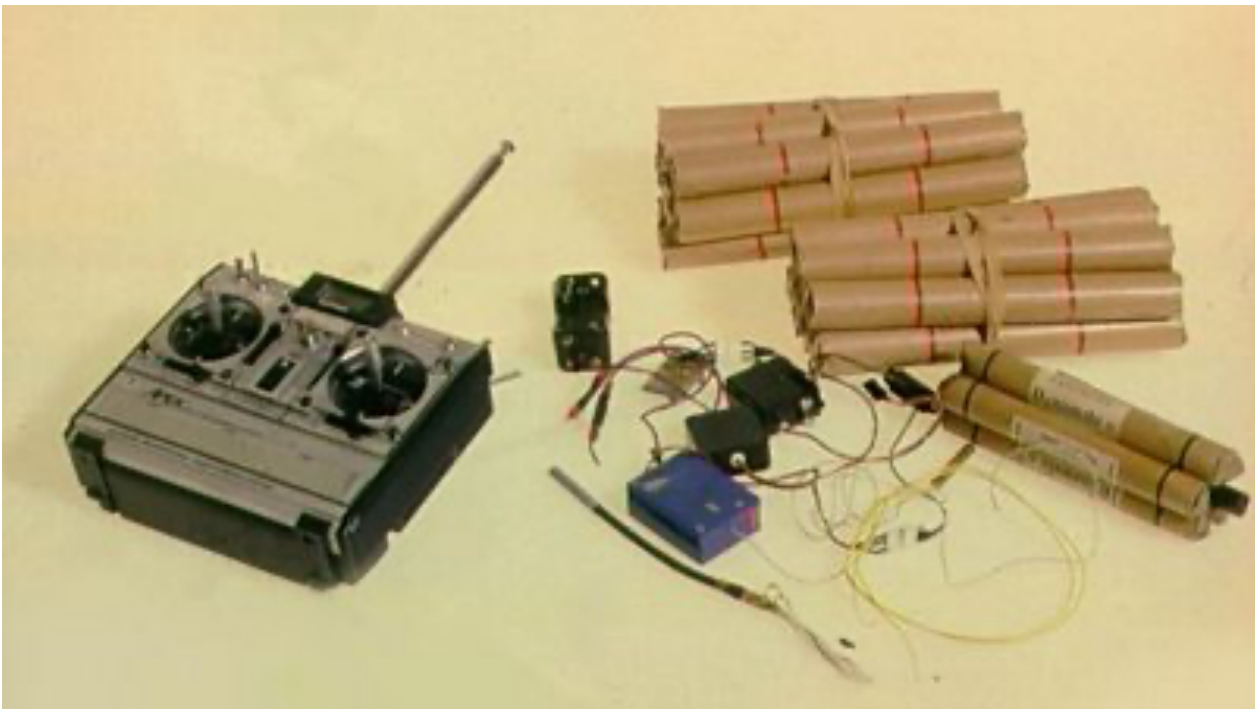


By NATO standard

We eliminate the risk of sabotage and terrorist attacks.

Our elements provide the necessary shelters to provide protection of human life from firearms, explosion, terrorist attack or vehicle raid.

- Ballistic resistance A5
- Shrapnel resistance C4
- Blast resistance D6



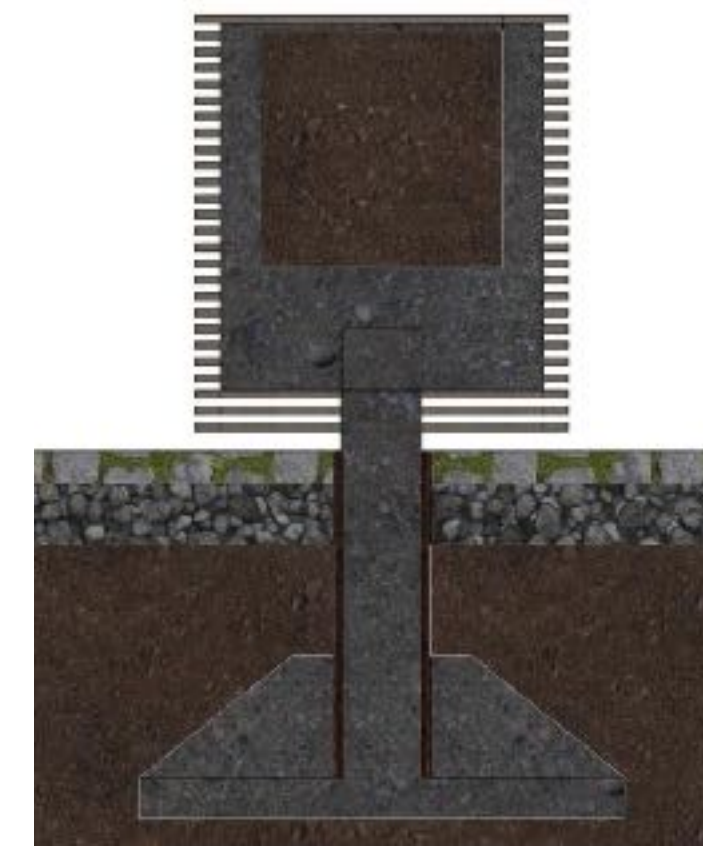
SAFETY ELEMENTS



By NATO standard

Bench

- It serves to protect people, provides cover from flying shrapnel, projectiles and explosions.

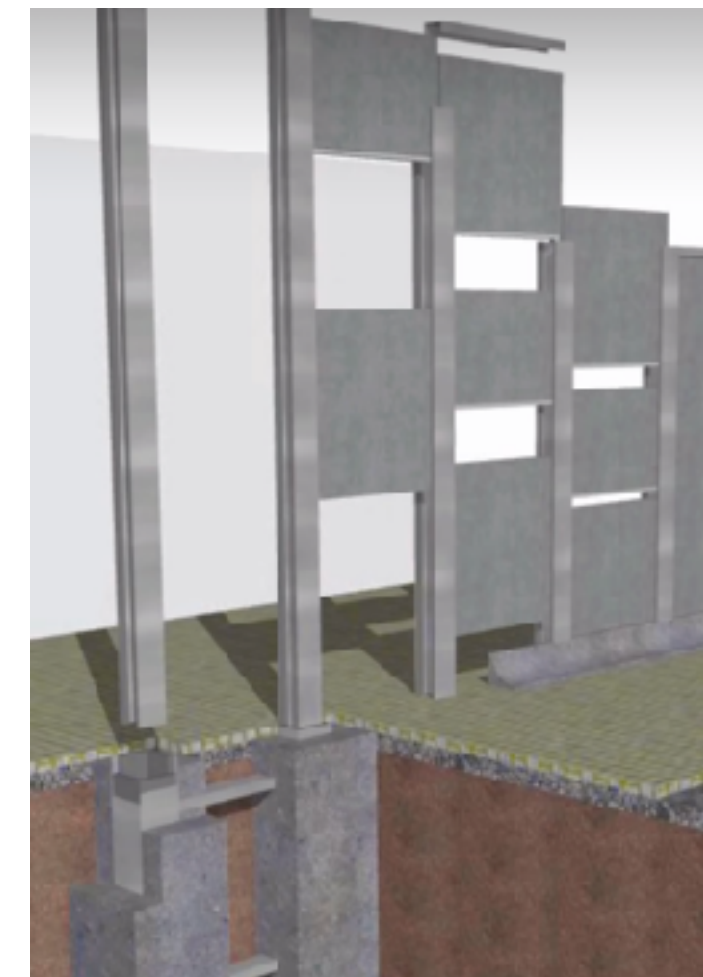


Flower box

- High ability to absorb kinetic energy caused by impact or explosion.

Safety wall

- Primarily used to protect critical infrastructure objects of high priority from attack.



Ballistic resistance
Shrapnel resistance
Blast resistance

A5
C4
D6

SAFETY ELEMENTS



By NATO standard

Wiring tunnel

- UHPFRC tunnel used to protect high priority **cables** and IOT technology system.

Mobile roadblock

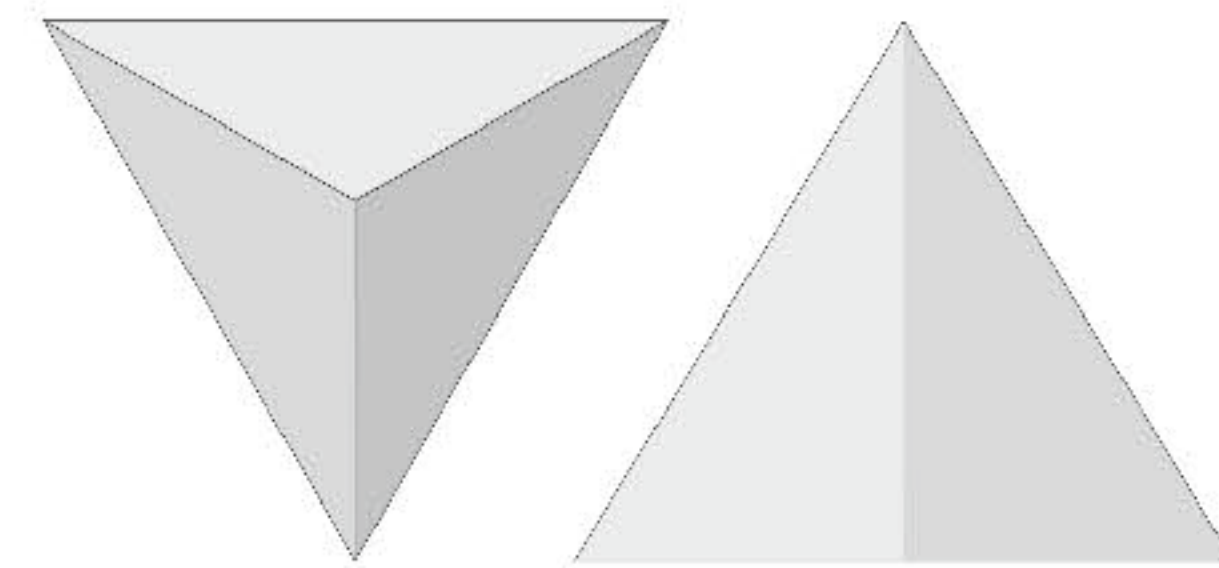
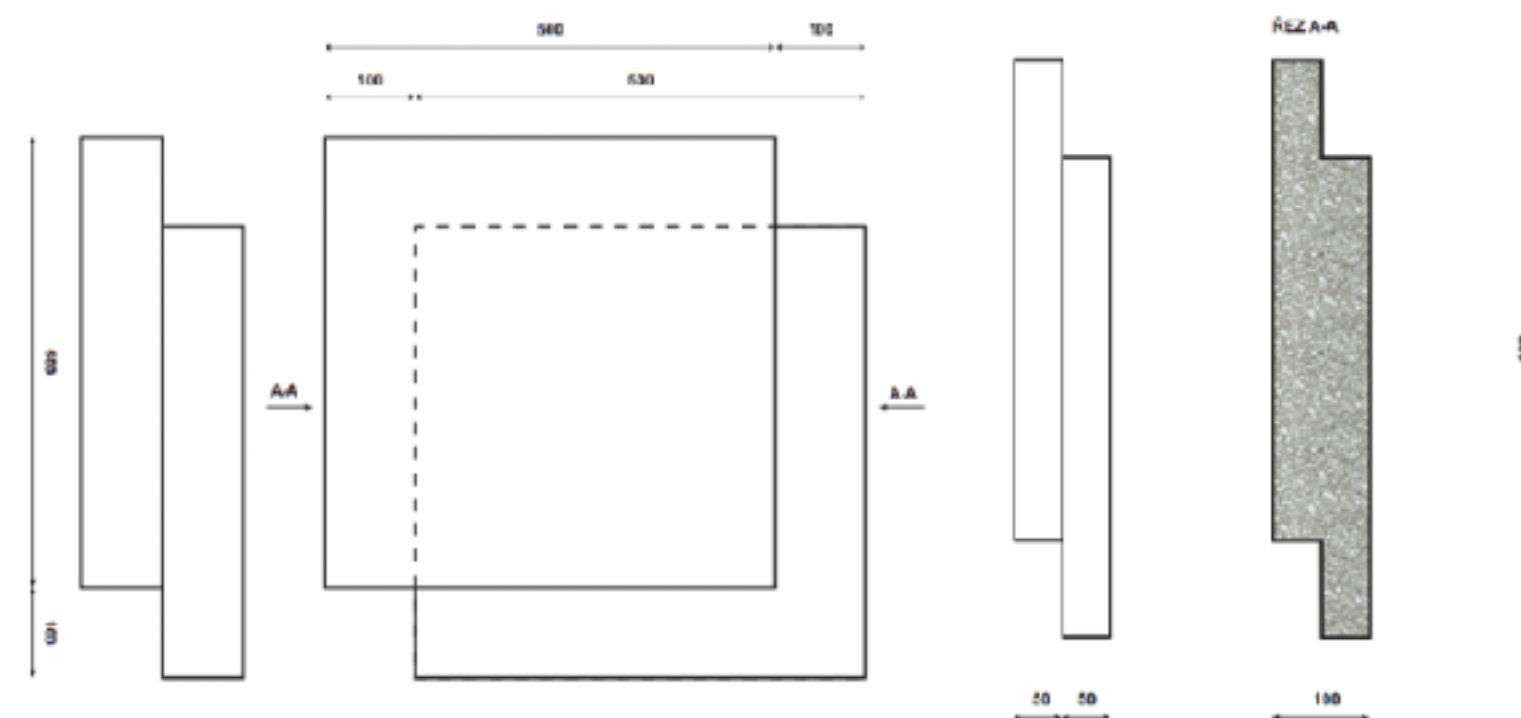
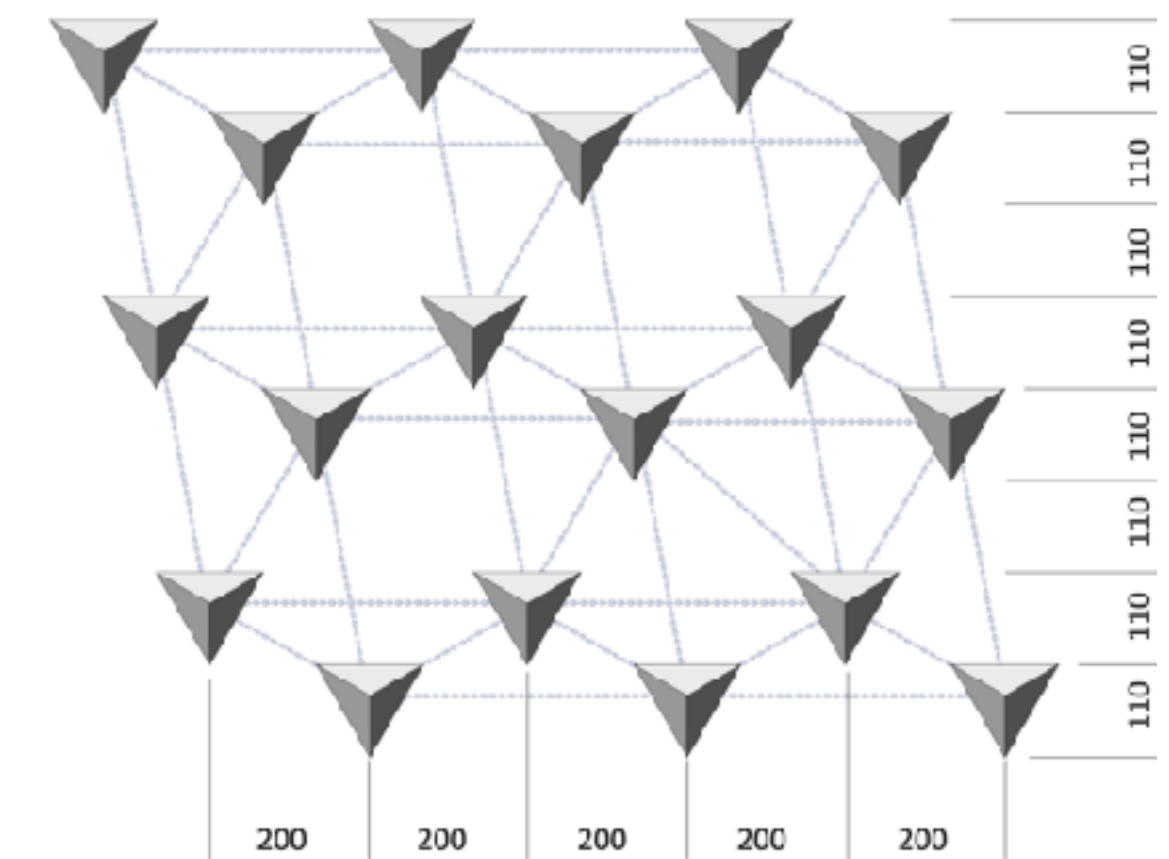
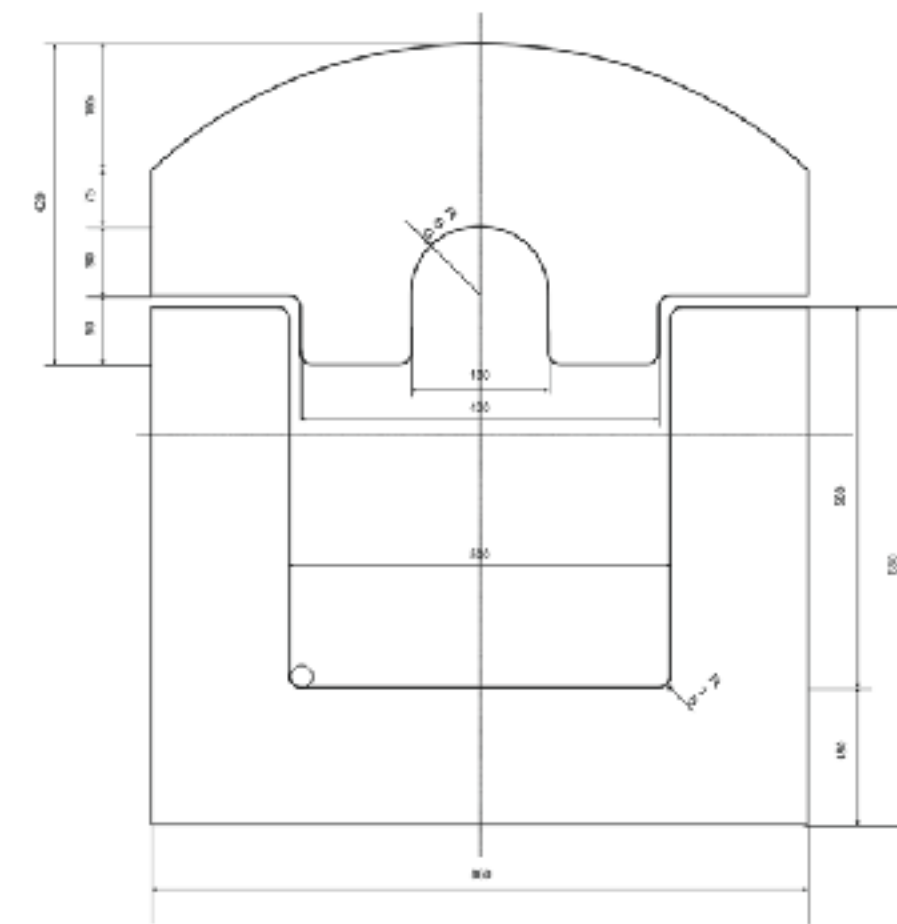
- Used for operational positioning in multiple lines in the direction of the enemy's expected approach and to **stop** tracked or wheeled combat vehicles.

Composite shields

- Shields to protect buildings and objects.

Ballistic resistance
Shrapnel resistance
Blast resistance

A5
C4
D6



SAFETY ELEMENTS



By NATO standard

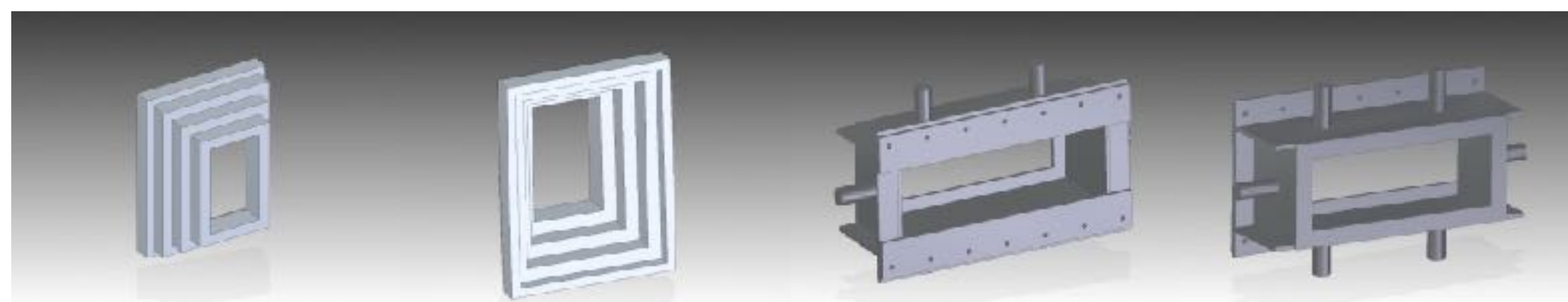
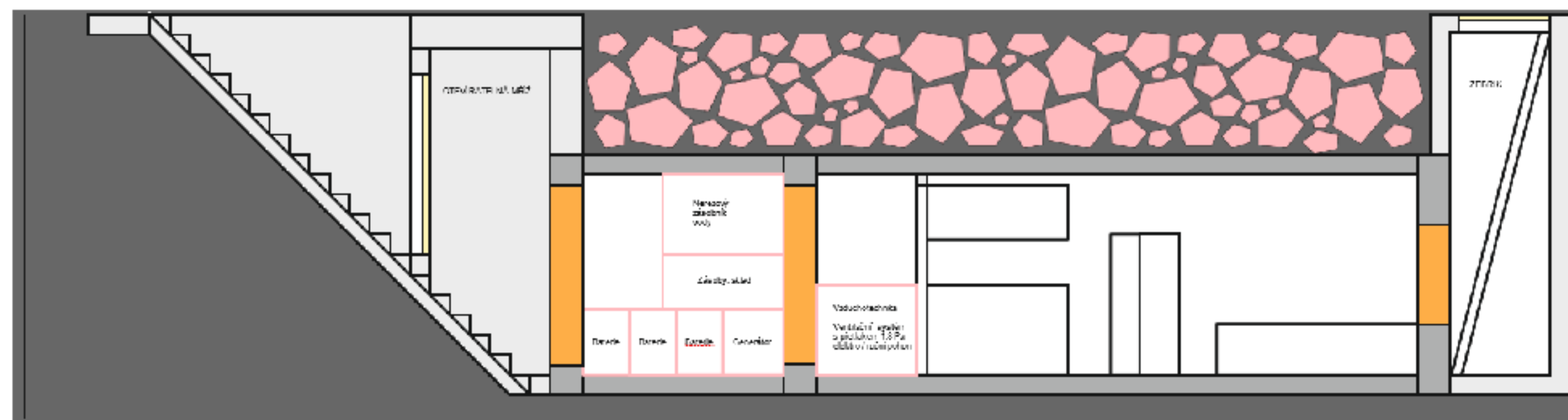
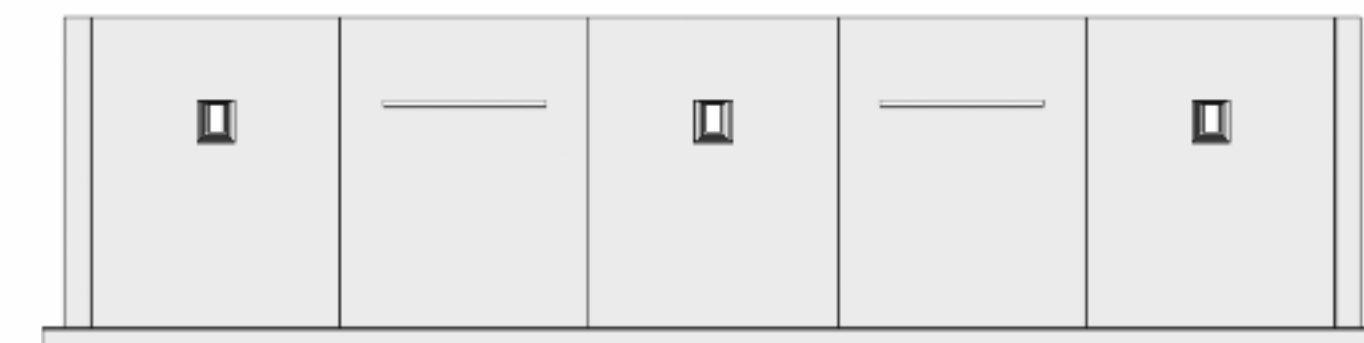
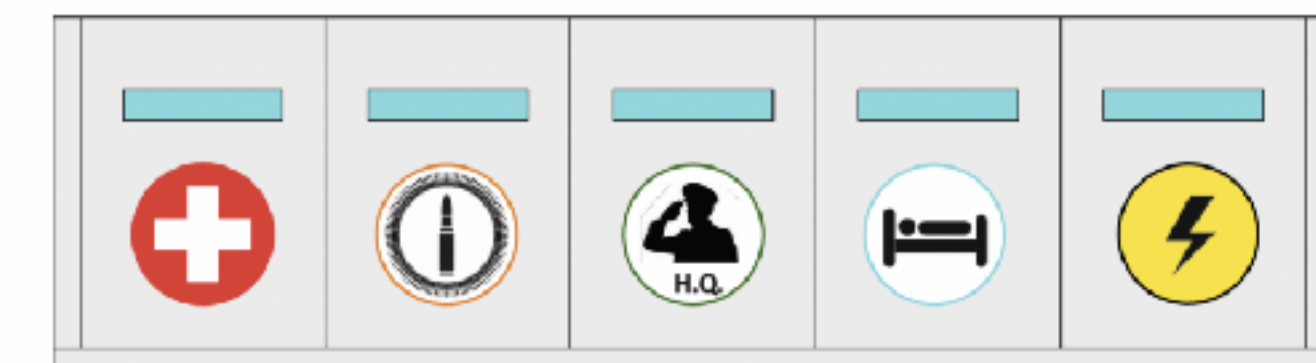
Defence mobil

- Emergency shelter, ammunition storage, headquarters, accommodation, mobile hospital, generators, laundry,...

Mobile bunker

- The base structure can be equipped according to the **client's requirements** (beds, benches, chemical toilet, shell traps, ammunition and food storage boxes, compressed air bottles and breathing apparatus).

Ballistic resistance A5
Shrapnel resistance C4
Blast resistance D6



SAFETY ELEMENTS



By NATO standard

Ballistic resistance
Shrapnel resistance
Blast resistance

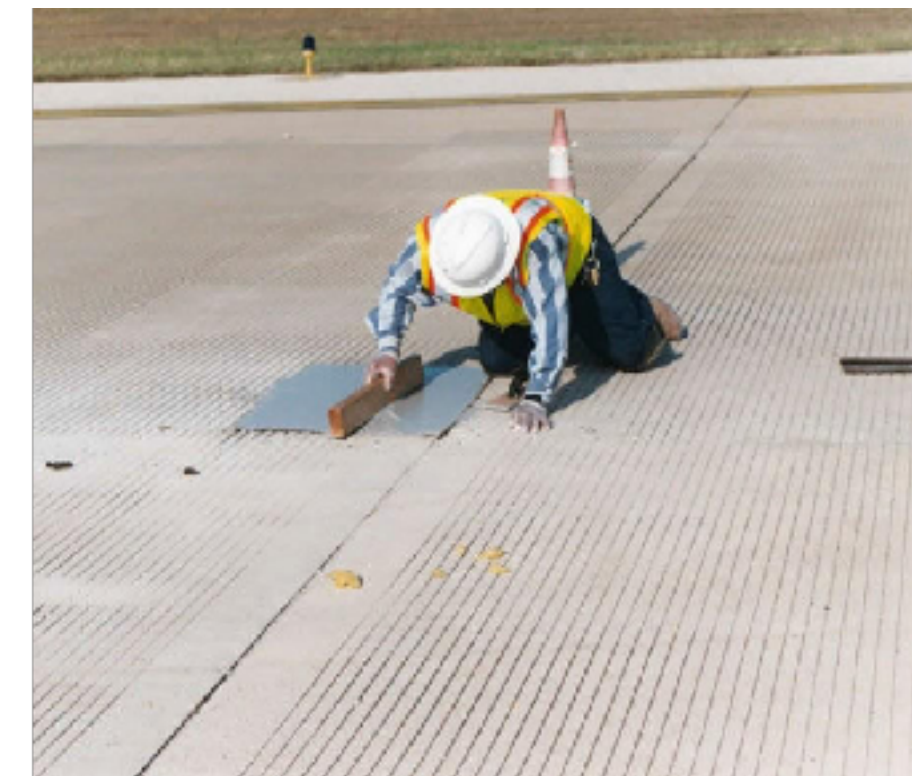
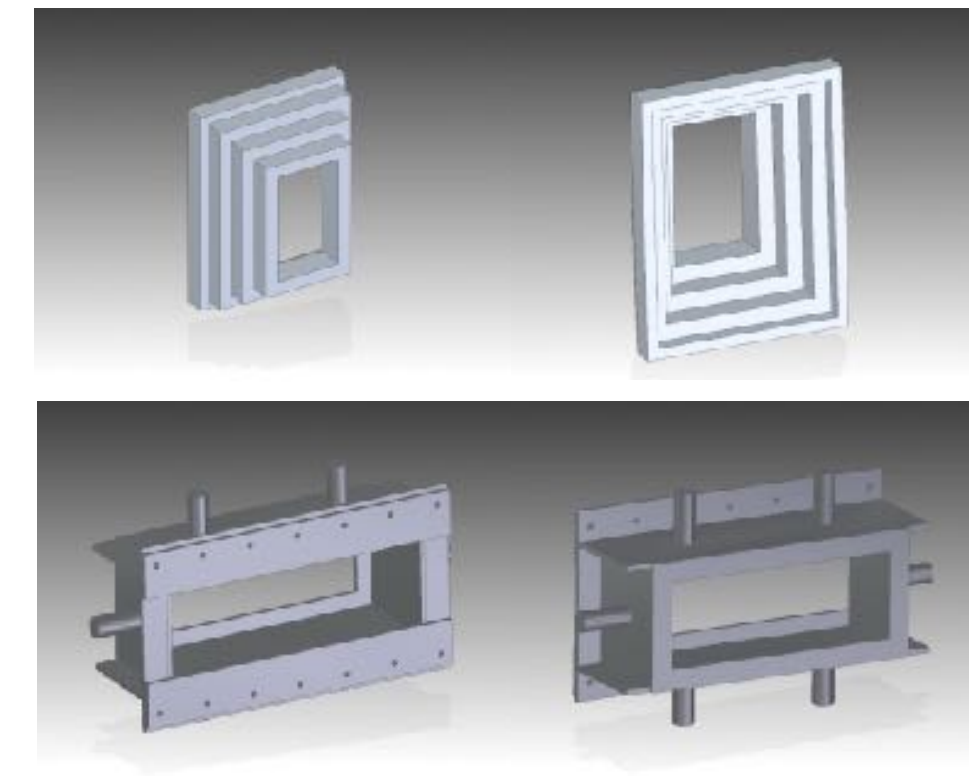
A5
C4
D6

CHECKPOINT

- Used to check the perimeter of interest.
- Ability to react quickly to defined threats in case of national emergency and **war**.

Runway repair

- Emergency team ready to go within **24** hours up to **1.000km** with a ready mixture of UHPFRC.
- Advantage of **high quality** and fast hardening compound for the required load.



FRANCHISING TIMELINE



Duration of time: 1 - 6 months					
1	2	3	4	5	6
First stage		Second stage		Third stage	

Determination of the territory of the Master Franchise Agreement (MFA).

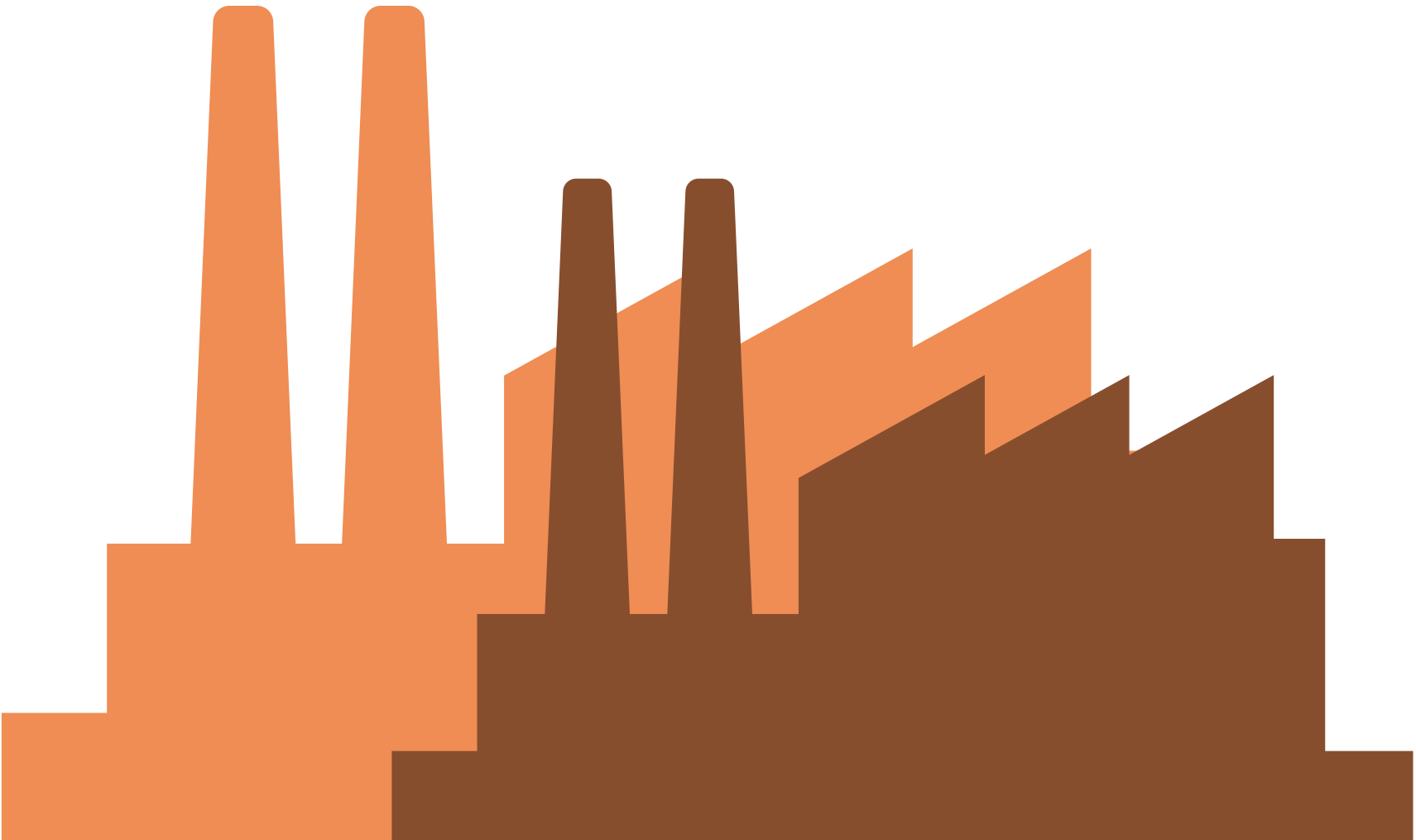
Ongoing operational, technical and service support.

Initial and ongoing management training.

The right to use the **IBIPC trademark** in the promotion and labelling of products.

All know-how transfer within 1 - 6 months divided into three stages of progression.

Recipe for the blend and production of the **UHPFRC composite**.



FIRST STAGE

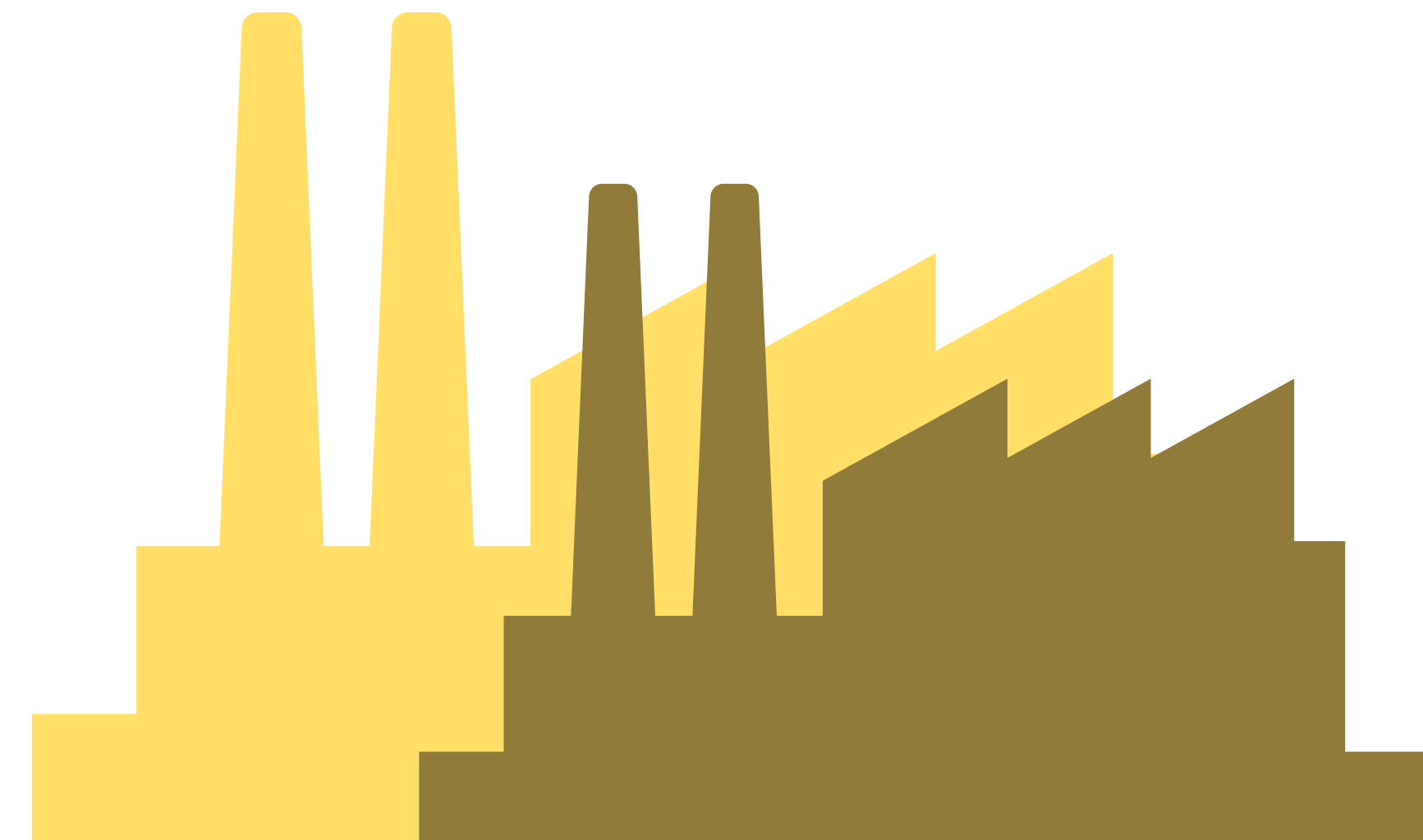


Duration of time: 1 - 6 months					
1	2	3	4	5	6
First stage		Second stage		Third stage	

Samples of the raw materials from which the Future Transferee currently produces concrete, including the recipe, will be **analyzed** in the laboratory of the **Czech Technical University** in Prague and sent to the Future Transferee in a volume of 0.5 m³ within one week after the first payment.

The Future Transferor shall **ensure** that the laboratories verify the **ability to replace** the Future Transferee's existing IBIPC mix **formulations** or propose alternative solutions separately, not included in the MFA price, and send the result of the recommendations to the Future Transferee.

These analyses will be billed to the Future Transferee.



SECOND STAGE



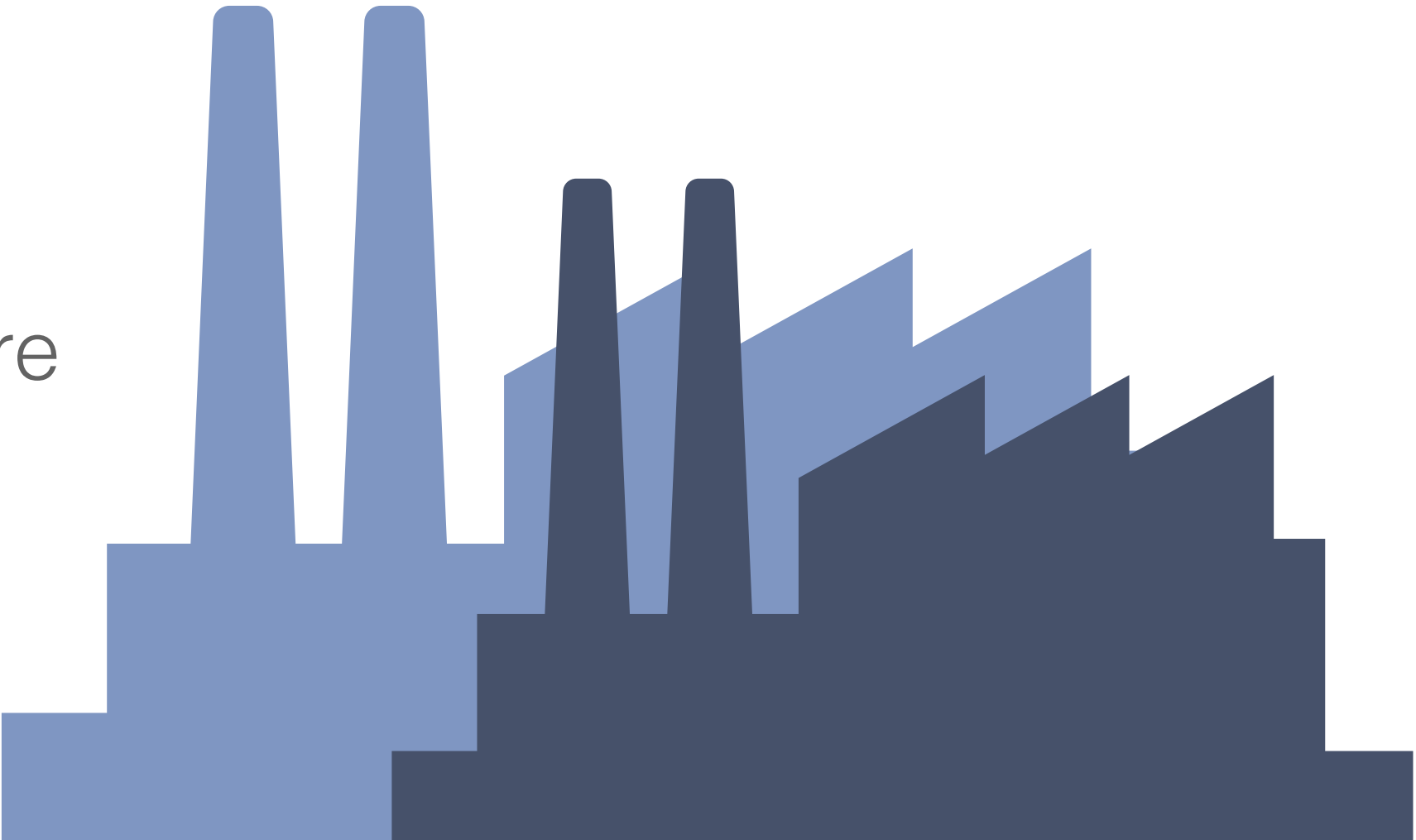
Duration of time: 1 - 6 months					
1	2	3	4	5	6
First stage		Second stage		Third stage	

A team of experts and technicians will be deployed under the direction of the Future Transferee to apply the recommended technology at the Future Transferee's manufacturing facility.

If the physical and mechanical parameters of the concrete produced from the Future Transferee's raw material are achieved, the certification of the concrete will be verified by a state laboratory upon return to the Czech Republic.

The team of experts and technicians develop the new mix from the Future Transferee's raw material will be charged separately to the Future Transferee and will not be part of the MFA price.

Handing over of drawings of safety elements.



THIRD STAGE



Duration of time: 1 - 6 months					
1	2	3	4	5	6
First stage		Second stage		Third stage	

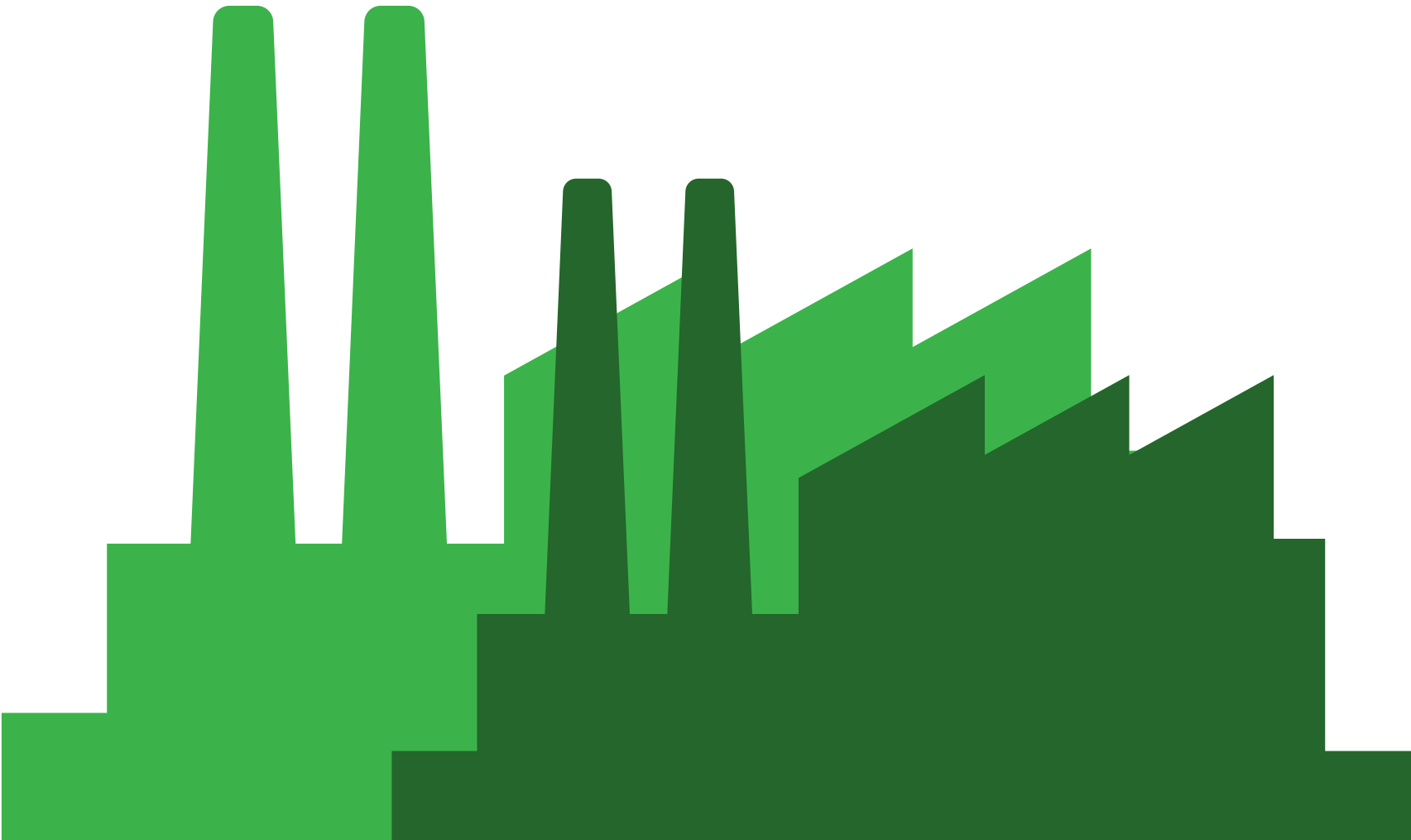
Handover of the new recipe and processing technology to the Future Transferee.

Launch of the production of the final mix and dry mix.

Handover of ballistic, blast and shrapnel resistance **certifications** in accordance with **NATO STANAG 2280**.

Second mission of a team of experts and technicians to **train** the Future Transferee's **employees** at the production site.

This mission will be charged separately to the Future Transferee and is not included in the MFA price.





INSTITUTE OF BLAST & IMPACT PROOF CONCRETE

Made to save you

Mgr. Pavel Belohradsky

CEO

pavel.belohradsky@ibipc.com

www.ibipc.com

