

LD-SAFE

Laser Dismantling Environmental and Safety Assessment

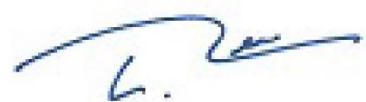
PLANS FOR DISSEMINATION OF THE RESULTS

DELIVERABLE D6.2

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1. INTRODUCTION

The Laser Dismantling Environmental and Safety Assessment (LD-SAFE) project aims to validate the laser cutting technology for the dismantling of most challenging components of Nuclear Power Plants (NPPs) in air and underwater, and thus, removing the last barriers for its implementation in decommissioning projects. For its success, dissemination of results is considered a key element.

For this purpose, Work Package 6 (WP6) of the project is dedicated to dissemination, exploitation, education, and training activities, and thus, aimed at generating an impact within and beyond the Consortium, and during and after the project finalization. As per the European Commission Horizon 2020, dissemination consists of sharing research results with potential users-peers of the research community, industry, and other commercial players and policymakers, and so, contributing to the progress of science in general, whereas exploitation consists on using the results for commercial purposes or in public policymaking. As such, there is usually a certain overlap between dissemination, exploitation and communication, especially for close-to-market projects. In other words, WP6 will be the link between the project and industrial and research communities, ensuring that the project is widely known, making links between on-going research initiatives, exploring and assessing emerging application areas, and setting the foundations for further potential commercial exploitation and opportunities with End Users.

This document is focused on dissemination activities, by updating and detailing the plans contained within the LD-SAFE Proposal [Ref. 1]. For this purpose, this document outlines the dissemination strategy, by defining the following:

- Dissemination objectives, that is, the mission behind the dissemination plan.
- Dissemination topics: what is to be disseminated.
- Target audience: to who are subjects and topics to be disseminated.
- Dissemination methods: how are subjects and topics to be disseminated.
- Schedule of planned actions: when are subjects and topics to be disseminated.
- Allocation of dissemination responsibilities: who is responsible of dissemination actions.

The first version of this document was submitted in month 12. Further updates of the plans will be performed in later stages of the project:

- By updating this document in month 36.
- By submitting D6.6, Final dissemination plan, in month 48.

Additionally, the dissemination plan will be complemented by the plans for exploitation of results developed under WP6.

2. REFERENCES

- [Ref. 1] LD-SAFE Consortium, 2019. Proposal ID 945255, Laser Dismantling Environmental and Safety Assessment. Horizon 2020 European Union Program.
- [Ref. 2] LD-SAFE Consortium, 2020. D6.9: Data Management Plan.

3. ACRONYMS

LD-SAFE	Laser Dismantling Environmental and Safety Assessment
N/A	Non-Applicable
NPPs	Nuclear Power Plants
R&D	Research & Development
RTOs	Research and Technology Organizations
SME	Subject Matter Experts
WP	Work Package

4. DISSEMINATION AND COMMUNICATION STRATEGY

4.1. Objectives

The objective of dissemination activities is to transfer knowledge and results arising from the project to selected target audiences (refer to section 4.2). Additionally, communication and engagement with target audiences is essential throughout the project, and thus, obtaining relevant feedback to align the project outcomes to the expectations of interested parties.

As an epitome, dissemination and communication activities aim to reach out to society and show the impact and benefits of LD-SAFE project, and thus, turning the LD-SAFE project new knowledge into a socio-economic viable and sustainable innovation.

This will be achieved by focusing dissemination activities towards the following partial objectives:

- Raising public awareness about the LD-SAFE Project and associated outcomes, managing dissemination efforts and methods based on target audience and desired impact.
- Exchanging results with the research community and the industry in the decommissioning and nuclear fields, in order to obtain synergies and avoiding duplication of efforts, thus, working towards research efficiency and maximizing its potential.
- Disseminating the results and expertise acquired during the LD-SAFE Project.
- Serving as a base for the successful exploitation of results.
- Maximizing the potential for success of the objectives of the LD-SAFE Project itself.

4.2. Topics subject to Dissemination

Subjects and topics subject to dissemination will vary throughout the LD-SAFE Project:

- During the initial phase, months 0 to 12, the efforts will be focused on raising awareness of the LD-SAFE Project itself by disseminating its objectives and milestones, as well as the methodology to be followed during the project and associated tasks. In this phase, the dissemination strategy is aimed at creating the base of audience in relevant target groups which may also help to ensure that project outcomes are aligned to their expectative, as for which the Advisory Board plays a key role.
- During the intermediate phase, months 13 to 40, the dissemination efforts will be gradually shifting to the outcomes that are obtained in different stages and activities of the project.
- During the project finalization phase, months 41 to 48, the dissemination efforts will be focused on the main outcomes of the LD-SAFE Project, transferring knowledge and setting the base of

further research and exploitation of results. Dissemination efforts are planned to increase in this stage, by combining all dissemination methods, including an education and training program.

4.3. Target Audiences

The plans for dissemination of results are focused on specific target audiences, for which specific methods and indicators will be used. For this purpose, target groups are defined based on their potential to create synergies towards common research goals, and which stakeholders may benefit the most from the project outcomes. In this regard, three target groups are considered:

- Industry and Subject Matter Experts (SME) in the nuclear and decommissioning fields.
- Research Community specialized in nuclear, decommissioning of NPPs and cross-sectional topics.
- Other stakeholders, such as policy makers, public agencies, and the public in general.

Other Horizon 2020 programs from the European Commission will be specially considered within target audiences, because of their potential for creating relevant synergies regarding dismantling activities. The LD-SAFE project will seek and work towards creating strong connections with SHARE, CLEAN DEM, and other related H2020 projects.

Additionally, the Advisory Board is created to join relevant members of target audiences by setting the Expert Group, End User Group, and Support Group (refer to section 5.9 for further information).

4.4. Methodology

The methodology for dissemination of results is based on the combined use of different methods (refer to section 5), as to increase the impact on target audiences. Dissemination and communication will be performed continuously throughout the project (refer to section 6 for planned actions schedule) and the dissemination actions will be monitored and evaluated against predefined targets (refer to section 7). Based on the indications, additional actions will be taken to increase the impact on target audiences as needed.

The following figure synthesizes the dissemination methodology:

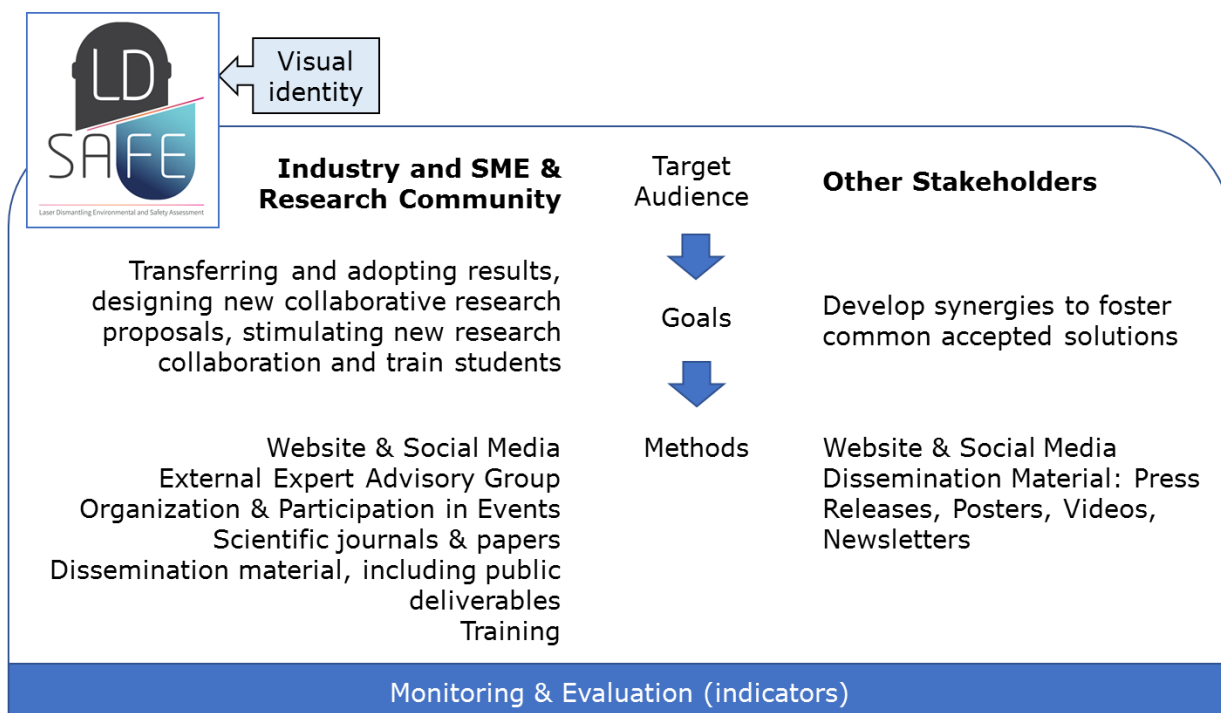


Figure 4.1. Dissemination Plan Overview

4.5. Roles and Responsibilities

The main roles and responsibilities of the Consortium members in regards of dissemination activities are summarized in Table 4.1.

Table 4.1. Roles and Responsibilities for Dissemination Activities

Dissemination Actions	OT	CEA	TCB	LR	TE	IRSN
Dissemination Plan & Monitoring					R	
Visual Identity					R	
Website					R	
Social Networks					R	
Organization of Events	R					
Participation in Events	R	R	R	R	R	R
Flyer & Poster					R	
Press Releases	R					
Videos					R	
Newsletters					R	
Scientific Publications	All partners contributing to the dissemination action					
Deliverables	All partners contributing to the dissemination action					
Training					R	

R= Main responsible for the action

In addition to the main responsible for the action, the rest of Consortium partners will contribute by seeking opportunities to disseminate project results through dissemination and communication methods, as well as to create scientific materials and to act as technical experts for defining the training program.

5. DISSEMINATION AND COMMUNICATION METHODS

Dissemination and communication methods will be adjusted based on target audiences and desired results, adapting the strategy based on actual results. The following subsections describe the methods considered as dissemination and communication channels to promote the project and work towards its success. One-way communication and interpersonal two-way communication methods will be used based on the intended goals.

Dissemination and access rights to the results are defined in the Consortium Agreement and are detailed in the LD-SAFE Project deliverable D6.9, Data Management Plan [Ref. 2].

5.1. Visual Identity

Creating a distinctive visual identity of the project is essential for dissemination and communication activities. Thus, branding of the project was performed during the first months of the LD-SAFE project, by completing the following:

- Brand book, defining the logo and distinctive typography and colors, as well as to provide examples of graphic resources and stationery designs (refer to Annex III).
- Report, Presentation and Letter Templates to be used by the Consortium.

5.2. Website

General public awareness about the project activities is increased with a public web site in English (<https://ldsaf.eu>), which was available and widely disseminated in Month 5. The website contains the following:

- Information about the LD-SAFE project main aspects, including objectives and milestones.
- Area for downloading public deliverables as they become available.
- Area with relevant news about the project or related to it, including LD-SAFE press releases, newsletters, and potential posters or scientific papers.
- Area with information of the Consortium and associated contact details.
- Area with information about the LD-SAFE project collaborators (Advisory Board), including End User Group, Expert Group, and Support Group members.
- Link to social networks project accounts.

The website is designed considering the following:

- Visual impact: colors and photos are selected based on the project visual identify and with the aim to create an attractive visual impact.

- Verbal communication: simple wording is selected as to engage a wide range of audience.
- User friendly: easy-to-browse webpage, with short and relevant messages, and with links to publications, social networks, etc.
- Updates and monitoring: the webpage is designed as to allow regular updates (including deliverables and news) and includes a tool to monitor the visits and associated statistics.

The website will be monitored throughout the project duration with detailed analytics, including number of website visits and deliverables download. Traffic monitoring will also serve for assessing impact on other dissemination campaigns (social networks, workshops, press releases...). As an indicator, the minimum target value at the end of the project will be to obtain at least 500 website single visits. Each Consortium member may support dissemination actions through their organization websites.

The LD-SAFE project website will be maintained 3 years after the project end for supporting the project impacts.

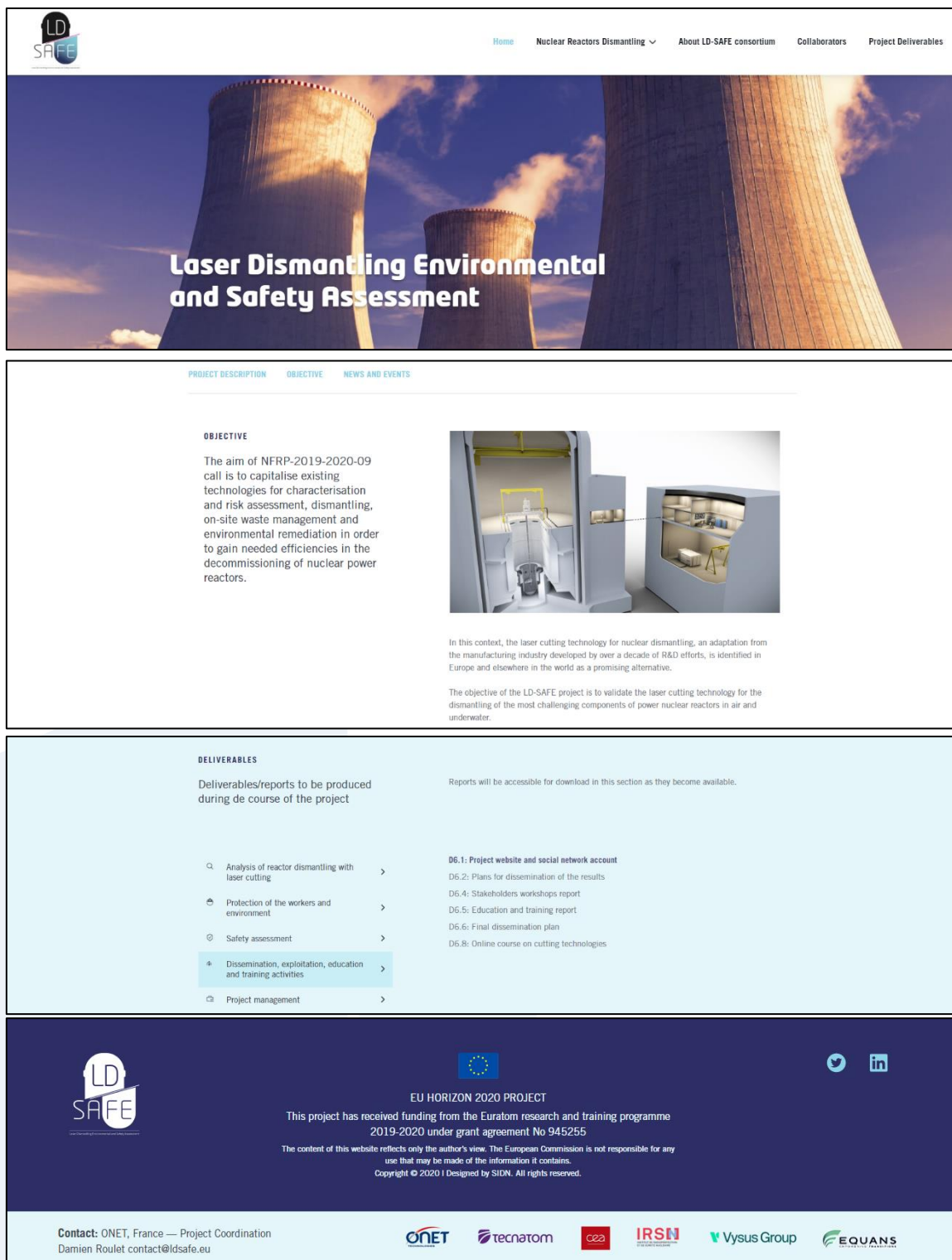


Figure 5.1. LD-SAFE Project Website Images

5.3. Social Networks

Professional social network accounts are set-up in order to maximize the visibility of the published results and partners organization/participation in international events.

The following accounts are available since Month 5:

- LinkedIn Page: LD-SAFE Project
- Twitter account: @ld_safe

The following indicators/targets are set as objectives for the end of the project:

- At least 300 followers (LinkedIn or Twitter)
- At least 36 updates (LinkedIn or Twitter)

Social network campaigns will be coordinated within the Consortium, and social networks of each member may be used to increase the dissemination impact.



Figure 5.2. LD-SAFE Project Twitter and LinkedIn Accounts

5.4. Organization of Technical Workshops

The organization of two technical workshops were envisaged in the LD-SAFE Proposal. While the first technical workshop aimed at presenting the project to the stakeholders and sharing views with them about the use of laser cutting for reactor dismantling, the second technical workshop will aim at disseminating the results of the project both to industry, academics and Research and Technology Organizations (RTOs). The table below summarizes the objectives and target audiences of the workshops:

Table 5.1. LD-SAFE Technical Workshops

Workshop	Location	Objectives / Topics	Target Audience
Workshop 1 M3, 2 days	Day 1, OT headquarters	Presentation of the LD-SAFE project. Invitation to express interest to be part of the End User Group.	Open workshop for scientists, professionals from the nuclear industry, and safety authorities.
	Day 2, OT headquarters	Sharing expert views on the requirements for power reactor dismantling with laser cutting. Questionnaires to the End User Group.	End User Group (confirmed members) and technical experts in the field of safety and power reactor dismantling.
Workshop 2 M45, 2 days	Day 1, OT headquarters	Presentation of LD-SAFE results followed by a visit of the demonstrator (underwater)	End User Group (final) and technical experts in the field of safety and power reactor dismantling.
	Day 2, OT headquarters	Scientific thematic work sessions followed by a visit of the demonstrator (underwater).	Academics and Research and Technology Organizations (students, post-graduate scientists, engineers, and researchers).

Due to COVID-19 restrictions, the first workshop was organized as an online event (webinar) on the 9th of December of 2020, covering the same topics and target audience. The Webinar presented the objectives and milestones of the project and shared views with the End User Group and Expert Group, thought interactive polls and questions/answers. A questionnaire was also shared with the End User Group, which was fully completed by the 12 members of the End User Group (100%). As a result, the objectives set for the workshop were successfully achieved. A public workshop may be scheduled during 2021 if the Covid situation improve.

The commitment of the stakeholders to participate to the second workshop is an important milestone of the project and will be a measure of its success. A target of 100 participants in the workshop is set.

5.5. Participation in Events and Conferences

Participation in international and national events by Consortium members will be also a dissemination and communication method for the LD-SAFE project. The following international events, among others, are considered for dissemination activities:

- World Nuclear Exhibition editions of 2021 and 2024.
- NDA Supply Chain Events (United Kingdom) annual editions.
- Waste Management Symposium (United States of America) annual editions.
- International Conference on Nuclear Decommissioning annual editions.
- Nuclear Energy Agency periodic workshops.
- World Nuclear Association Symposium annual editions.
- World Nuclear Industry Congresses.
- EUROSAFE forum annual editions.
- SFEN conferences.
- ICOND event
- National events, such as the Spanish Nuclear Society annual event (2021).

The participation of events in 2020 and beginning of 2021 was limited due to COVID-19 restrictions, which caused the cancelation of many of them. After that, LD-SAFE intensified its participation on events, being actively present in the following:

- DEM 2021 (France)
- Spanish Nuclear Society Event 2021 (Spain)
- ICOND 2021 (Germany)
- BASE safeND symposium (Germany)
- WNE 2021 (France)

Participation in events will continue in future stages of the project, as more project results become available for dissemination.

5.6. Publications and Dissemination Materials

Publications and dissemination materials will be created throughout the project in order to reach all target audiences. The following is planned:

- Flyer and Poster for disseminating project objectives and milestones. This material is available so Consortium members can use it in events or as considered necessary (refer to Annex II).
- Press Releases. The first press release was disseminated in Month 12, and a second in Month 24.
- Videos, to be used in the website, social networks, or events. For their public dissemination, a LD-SAFE YouTube channel was created. Videos were disseminated in Month 12 and 24 (Figure 5.3).
- Newsletters to be released twice a year (as a reference), which will be a tool for maintaining stakeholders updated about the project progress and relevant news. Two newsletters were submitted to the End User Group (October 21 and April 22).
- Scientific publications in relevant journals (i.e., Journal of Nuclear Materials, Nuclear Engineering and Design; Fusion Engineering and Design, etc.), and to update the IAEA Wiki, as relevant project results become available. The technical, professional, and scientific publications that will be produced by the project will be open accessed in order to be compliant with the general principle of the Horizon 2020 funding programs, as defined in D6.9, Data Management Plan [Ref. 2]. The links to other research and innovations activities, as described in the LD-SAFE Proposal [Ref. 1] will be considered.
- Deliverables, either public or shared with the Expert and/or End User Groups (as defined for each document) will serve to disseminate project results. The website will be used to share public deliverables.
- Other dissemination publications¹ to increase awareness of the LD-SAFE project.

Indicators and targets are set for dissemination and communication materials, as described in section 7.

¹ LD-SAFE project information was provided to CORDIS, SNETP, IRSN (and associated ETSON network, European Technical Safety Organisations Network) and IGNALINA PPP:

- <https://cordis.europa.eu/project/id/945255>
- <https://snetp.eu/portfolio-items/ld-safe/>
- <http://www.etson.eu/node/109>
- <https://www.iae.it/en/news/press-releases/finding-the-best-solutions-for-reactors-dismantling/643>
- IRSN Newsletter ("Updates 65")



Figure 5.3. LD-SAFE Project Video

5.7. Education and Training Program

Education and training programs will be organized for students, workers, and researchers to reach best practices and knowledge of technologies in decommissioning of nuclear facilities. Such activities will be supported and disseminated by Research & Development (R&D) and academic partners.

An online course will be developed to provide the attendants with knowledge about the latest cutting technologies for dismantling. 25 participants per session is set as a target/indicator of this dissemination method.

The course will be available in the online platform (<https://learningwithsoul.com/en>) for increasing its visibility and impact. The course will also be proposed to the ELINDER program for a wide dissemination.

5.8. Advisory Board: Expert Group and End User Group

The formation of the Advisory Board is an essential aspect for ensuring that communication and engagement with target audiences is achieved throughout the project, and thus, obtaining relevant feedback to align the project outcomes to the expectations of interested parties.

6. ACTION PLAN

The schedule of planned actions, together with the main responsible Consortium Member for its implementation is included in Annex I. Further information about allocation of responsibilities can be found in the LD-SAFE proposal [Ref. 1].

7. MONITORING, EVALUATION, AND STATUS

The dissemination plan and associated activities are monitored and updated constantly. Targets/indicators are set to evaluate dissemination progress and effectiveness, and actions will be taken in case dissemination needs to be strengthened. The information is synthetized in Table 7.1.

Table 7.1. Dissemination Indicators and Progress Evaluation

Dissemination Method	Main Target Audience	Target	Progress		Additional Actions / Observations
			Value	%	
Website	All	500 Single Visits	284 ²	57%	Continuous update of website content (deliverables and news) will be made. Additional actions are not considered necessary at this stage. Further visits are expected as more project results become available.
Twitter / LinkedIn ³	All	300 followers (appr. 100/year)	101	34%	Continuous updates of social media will be made. Additional dissemination campaigns will be implemented from LD-SAFE project and Consortium members Twitter and LinkedIn accounts to increase the number of followers. Followers distribution (Twitter vs. LinkedIn) may be linked to the profile of target audience, so only the maximum value of both social networks will be considered relevant (in this case, LinkedIn followers).
Twitter / LinkedIn	All	36 Updates	15	42%	Additional actions are not considered necessary at this stage. Further updates will be performed as project results become available
2 nd Workshop	Industry & SME, Research Community	100 participants	N/A	N/A	This indicator is non-applicable (N/A) until the workshop is performed.

² Monitoring started on February 1st, 2021.

³ The maximum value of Twitter or LinkedIn will be considered for followers and updates indicators, as it better reflects the dissemination impact through social networks.

Dissemination Method	Main Target Audience	Target	Progress		Additional Actions / Observations
			Value	%	
Publications in International Conferences	Industry & SME, Research Community	10 Publications	3 ⁴	30%	Additional actions are not considered necessary at this stage. Further publications will be performed as project results become available
Publications in International Journals	Industry & SME, Research Community	5 Publications	0	0%	Additional actions are not considered necessary at this stage. Publications will be performed as project results become available.
Online Course	Industry & SME, Research Community	25 participants	N/A	N/A	This indicator is non-applicable (N/A) until the course is performed.

8. ANNEXES

Annex I - Action Plan

Annex II - Dissemination Material

Annex III - Brand Book

⁴ LD-SAFE abstracts: "Development of New D&Ds' Technologies" for SFEN conference (DEM 2021), Sept.21; "LD-SAFE Project, Laser Cutting of Reactor Vessel and Internals" for Spanish Nuclear Society annual event, Oct. 21; "LD-SAFE: Laser Dismantling Environmental and Safety Assessment" for BASE symposium, Nov.21.

ANNEX I - ACTION PLAN

Table A-I.1. Action Plan

Materials	Main Resp.		Project Year 1										Project Year 2								Project Year 3						Project Year 4							
		1	2	3	4	5	6	...	9	...	12	...	15	...	20	21	...	24	...	27	...	33	...	36	...	39	40	...	43	...	48			
Website	TE																																	
Social Networks	TE																																	
Press Releases	OT																																	
Flyer	TE																																	
Poster	TE																																	
Videos	TE																																	
Newsletters	TE																																	
Workshops & Webinars	All																																	
Public Deliverables	All																																	
Scientific Publications	All																																	
Training Material	TE																																	

Green: Action performed. Blue: Action planned.

ANNEX II - DISSEMINATION MATERIAL

This Annex includes the following dissemination material:

- LD-SAFE project poster (Figure A-II.1)
- LD-SAFE project flyer (Figure A-II.2)



Laser Dismantling Environmental and Safety Assessment (LD-SAFE) Project

July 2020-June 2024



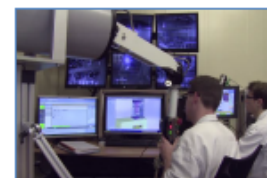
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Introduction

LD-SAFE is a four-year European research and innovation project focused on the use of laser cutting technology for the dismantling of nuclear power reactors.

It will demonstrate laser cutting capabilities meet key technical challenges in dismantling, assessing its environmental and safety impacts, and proving the economic advantages of its use.



What is to be achieved and How?



Objective 1: Demonstration of the capabilities of a versatile laser cutting solution to address key technical challenges in the decommissioning of large nuclear facilities.



Objective 2: Environmental and safety assessment of the implementation of laser cutting for nuclear reactor decommissioning.



Objective 3: Technical validation of the laser cutting prototype in operational environment.



Objective 4: Demonstration of the economic advantage of using the laser cutting technology for the forthcoming reactor decommissioning market.

Work Packages:

- ❖ WP 1: Analysis of the reactor dismantling with laser cutting.
- ❖ WP 2: Laboratory tests and calculations.
- ❖ WP 3: Protection of workers and environment.
- ❖ WP 4: Safety assessment.
- ❖ WP 5: Case studies and demonstrator.
- ❖ WP 6: Dissemination, exploitation, education and training activities.
- ❖ WP 7: Project Management.

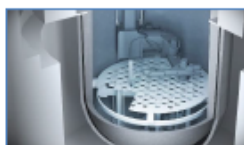
- Laser beam residual power
- Secondary emissions: aerosols
- Hydrogen gas generation during underwater laser cutting

- Representative mock-ups
- Operation of the demonstrator
- Technology technical validation

- Final Workshop
- Training Course

Laser Cutting Advantages

- **Excellent cutting performance** on metallic/ceramic material with a cutting capability of up to 200mm in thickness.
- **Cleaner** than most of other thermal techniques, especially for dust & fumes.
- **Technique minimizing slag production** (secondary waste production).
- **Has been paired with a selection of manipulators** for various applications in nuclear decommissioning
- **Proven performance** and long life in highly radioactive environments.
- **Safe** during operation and maintenance (reliable & remotely operated).



Economical Impact

Nuclear facilities decommissioning costs around the globe will amount to at least EUR 90 billion by 2040, per international estimations. Segmenting the Reactor Pressure Vessel (RPV) and Internals (RVI) is particularly long and costly, and whose complexity often leads to project deviations.

The ambition of the project is firstly to demonstrate the potential of **cost and time reduction** and better mastering of RPV and RVI dismantling by using laser cutting technologies. On this basis, the project will quantify the positive economic impact on the European Dismantling market of using laser cutting in order to support End Users in the decision of adopting the technology.

Consortium

LD-SAFE consortium is a strong partnership of leading industrial companies and European research centers with extensive track-records in dismantling of nuclear facilities, protection of people and the environment, safety assessment, and associated domains.

ONET TECHNOLOGIES - France
EQUANS - Belgium
CEA - France
VYSUS GROUP - Sweden
IRSN - France
TECNATOM - Spain



Horizon 2020
European Union Funding
for Research & Innovation

This project has received funding from the Euratom research and training programme 2019-2024 under grant agreement No 945255

Figure A-II.1. LD-SAFE Project Poster



Laser Dismantling Environmental and Safety Assessment



LD-SAFE Consortium

Strong partnership of leading industrial companies and European research centers with extensive track-records in dismantling of nuclear facilities, protection of people and the environment, safety assessment, and associated domains.

ONET TECHNOLOGIES - France



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IRSN - France



TECNATOM - Spain



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Laser Dismantling Environmental and Safety Assessment

July 2020 - June 2024



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LD-SAFE Project



European
Commission

Horizon 2020
European Union funding
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LD-SAFE

LD-SAFE is a four-year H2020 European research and innovation project focused on the use of laser cutting technology for the dismantling of nuclear power reactors.

The project aims to validate the laser cutting technology, in air and underwater, for the dismantling of the reactor pressure vessel (RPV) and internals (RVI).



What is to be achieved and How?



Objective 1: Demonstration of the capabilities of a versatile laser cutting solution to address key technical challenges in the decommissioning of large nuclear facilities.



Objective 2: Environmental and safety assessment of the implementation of laser cutting for nuclear reactor decommissioning.



Objective 3: Technical validation of the laser cutting prototype in operational environment.



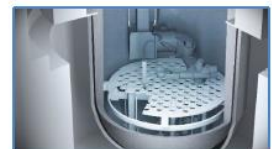
Objective 4: Demonstration of the economic advantage of using the laser cutting technology for the forthcoming reactor decommissioning market.

Work Packages:

- ❖ **WP 1:** Analysis of the reactor dismantling with laser cutting.
- ❖ **WP 2:** Laboratory tests and calculations.
- ❖ **WP 3:** Protection of the workers and environment.
- ❖ **WP 4:** Safety assessment.
- ❖ **WP 5:** Case studies and demonstrator.
- ❖ **WP 6:** Dissemination, exploitation, education and training activities.
- ❖ **WP 7:** Project Management.

Laser Cutting Advantages

- **Excellent cutting performance** on metallic/ceramic material with a cutting capability of up to 200mm in thickness.
- **Cleaner** than most of other thermal techniques, especially for dust & fumes.
- **Technique minimizing slag production** (secondary waste production).
- **Has been paired with a selection of manipulators** for various applications in nuclear decommissioning.
- **Proven performance** and long life in highly radioactive environments.
- **Safe** during operation and maintenance (reliable & remotely operated).



Economical Impact

According to international estimates, the costs of decommissioning nuclear facilities around the globe will amount to at least EUR 90 billion by 2040. For nuclear power reactors, the segmentation of the RPV and RVI is a particularly long and costly step, whose complexity often leads to project deviations.

The ambition of the project is firstly to demonstrate the potential of **cost and time reduction** and better mastering of RPV and RVI dismantling by using the laser cutting technologies.

On this basis, the project will then quantify the **positive economic impact** on the European Dismantling market of using laser cutting technologies in order to support decisions by the End Users to effectively adopt them.

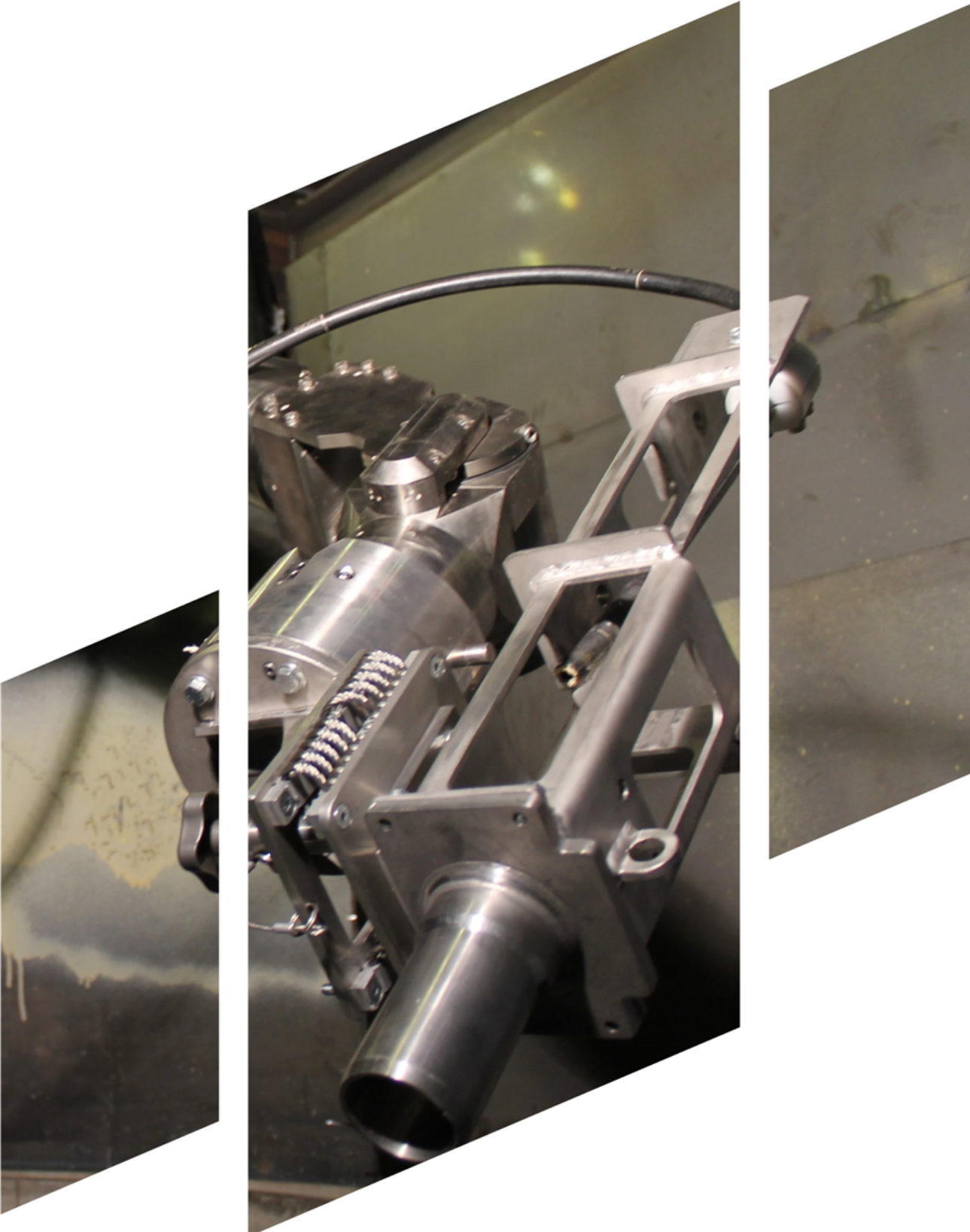
Figure A-II.2. LD-SAFE Project Flyer

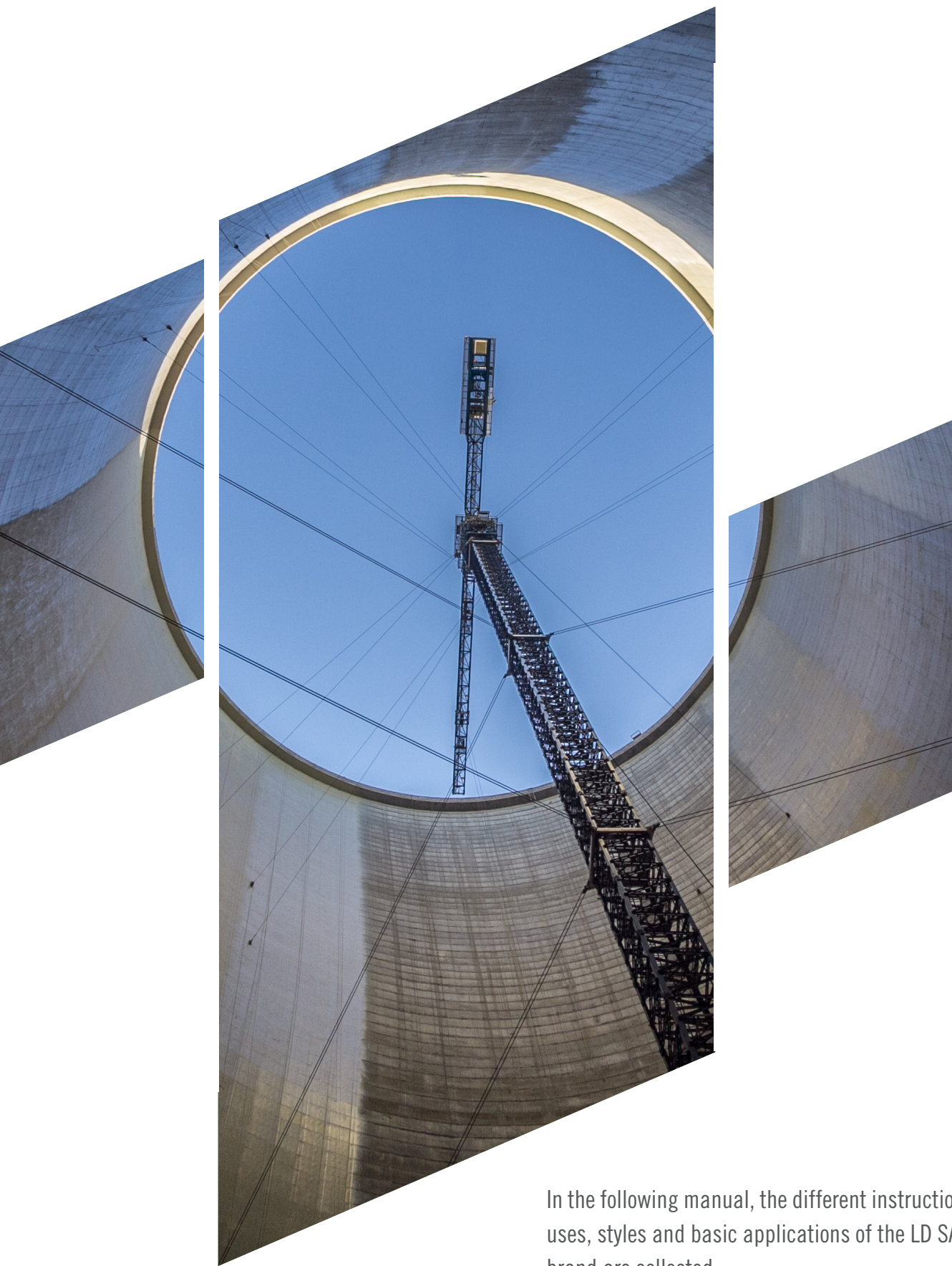
ANNEX III - BRAND BOOK

This Annex includes the last version of the LD-SAFE project Brand Book (16 pages).



Laser Dismantling Environmental and Safety Assessment





In the following manual, the different instructions, uses, styles and basic applications of the LD SAFE brand are collected.

Designed to facilitate the work process of all those responsible for using and interpreting the brand.

BRANDBOOK

- 01** THE BRAND
- 02** CORPORATE TIPOGRAPHY
- 03** CORPORATE COLOUR
- 04** GRAPHIC RESOURCES
- 05** CORPORATE STATIONARY



01
THE BRAND

The LD SAFE brand is made up of a series of elements: Naming (or logo), claim, isotype, typography and corporate colors.

Below we show a diagram of the main parts that the seal or brand includes:



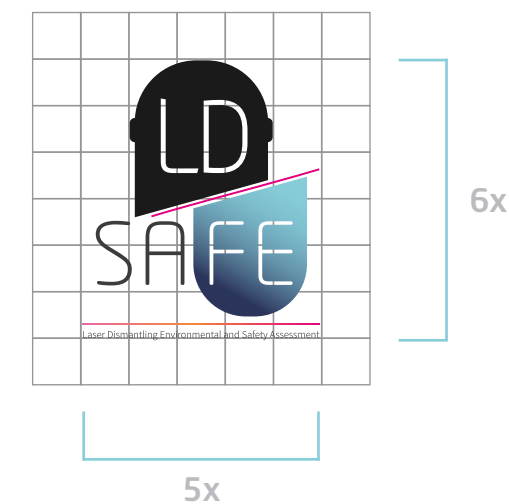
The LD SAFE brand is built into one on a modular surface 5x long by 6x high.

The value "x" constitutes the unit of measurements and by respecting it we achieve the perfect construction of the brand.

For the correct use and application of the brand, a reservation or security area of 1x is established, on which no type of graphic resource can be placed or added that could hinder the legibility and vision of the brand.

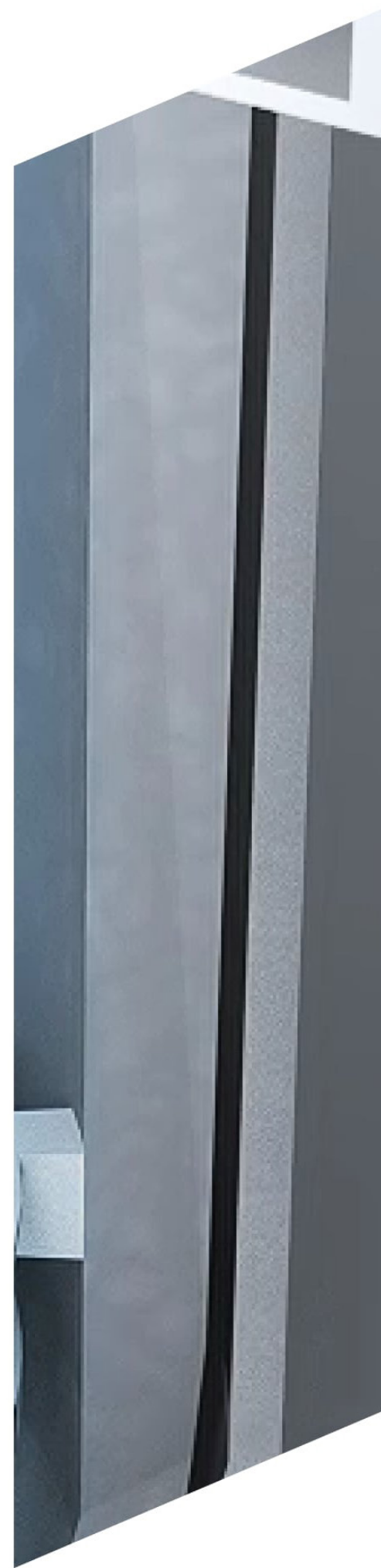
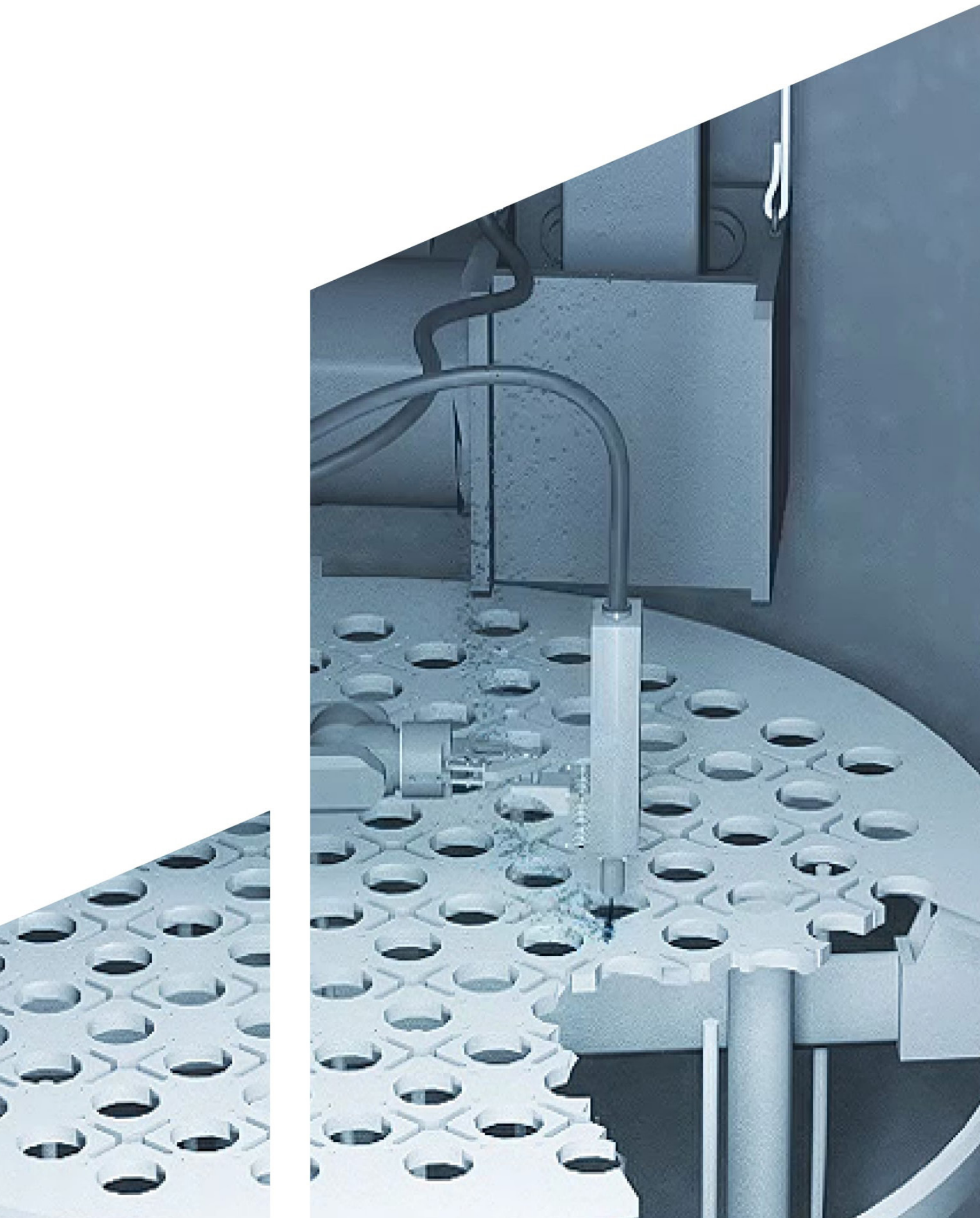
Here again, we use the value "X" as the unit of measure.

CONSTRUCTION



SECURITY AREA





02
TIPOGRAPHY

CORPORATE TIPOGRAPHY

NEO TECH STD (BOLD)

ABCDEFGHIJKLMNOPQRSTUVWXYZ
 abcdefghijklmnopqrstuvwxyz
 1234567890(!".\$%&/=^*~Ç,.~;:_)

NEO TECH STD (MEDIUM)

ABCDEFGHIJKLMNOPQRSTUVWXYZ
 abcdefghijklmnopqrstuvwxyz
 1234567890(!".\$%&/=^*~Ç,.~;:_)

NEO TECH STD (REGULAR)

ABCDEFGHIJKLMNOPQRSTUVWXYZ
 abcdefghijklmnopqrstuvwxyz
 1234567890(!".\$%&/=^*~Ç,.~;:_)

NEO TECH STD (LIGHT)

ABCDEFGHIJKLMNOPQRSTUVWXYZ
 abcdefghijklmnopqrstuvwxyz
 1234567890(!".\$%&/=^*~Ç,.~;:_)

SECONDARY TIPOGRAPHY

TRADE GOTHIC LT STD (BOLD)

ABCDEFGHIJKLMNOPQRSTUVWXYZ
 abcdefghijklmnopqrstuvwxyz
 1234567890(!".\$%&/=^*~Ç,.~;:_)

TRADE GOTHIC LT STD (REGULAR)

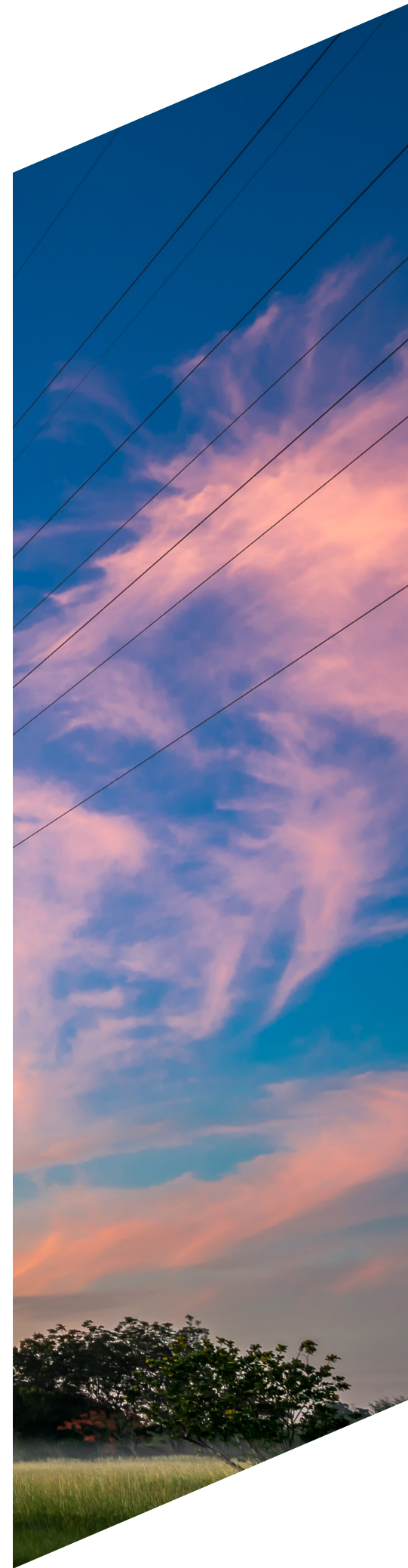
ABCDEFGHIJKLMNOPQRSTUVWXYZ
 abcdefghijklmnopqrstuvwxyz
 1234567890(!".\$%&/=^*~Ç,.~;:_)

TRADE GOTHIC LT STD (LIGHT)

ABCDEFGHIJKLMNOPQRSTUVWXYZ
 abcdefghijklmnopqrstuvwxyz
 1234567890(!".\$%&/=^*~Ç,.~;:_)

TRADE GOTHIC LT STD (CONDENSED)

ABCDEFGHIJKLMNOPQRSTUVWXYZ
 abcdefghijklmnopqrstuvwxyz
 1234567890(!".\$%&/=^*~Ç,.~;:_)



03
COLOURS

CORPORATE COLOURS



PANTONE 636 C

cmYk: 42 | 0 | 0 | 0
rgb: 139 | 211 | 230
hex: #8BD3E6



PANTONE 2038 C

cmYk: 0 | 72 | 1 | 0
rgb: 239 | 96 | 163
hex: #EF60A3



PANTONE 226 C

cmYk: 0 | 100 | 0 | 2
rgb: 208 | 0 | 112
hex: #D00070



PANTONE 2119 C

cmYk: 100 | 96 | 0 | 32
rgb: 44 | 46 | 101
hex: #2C2E65



PANTONE 715 C

cmYk: 0 | 50 | 93 | 0
rgb: 246 | 141 | 46
hex: #F68D2E



PANTONE BLACK 6 C

cmYk: 100 | 61 | 32 | 96
rgb: 16 | 24 | 32
hex: #101820

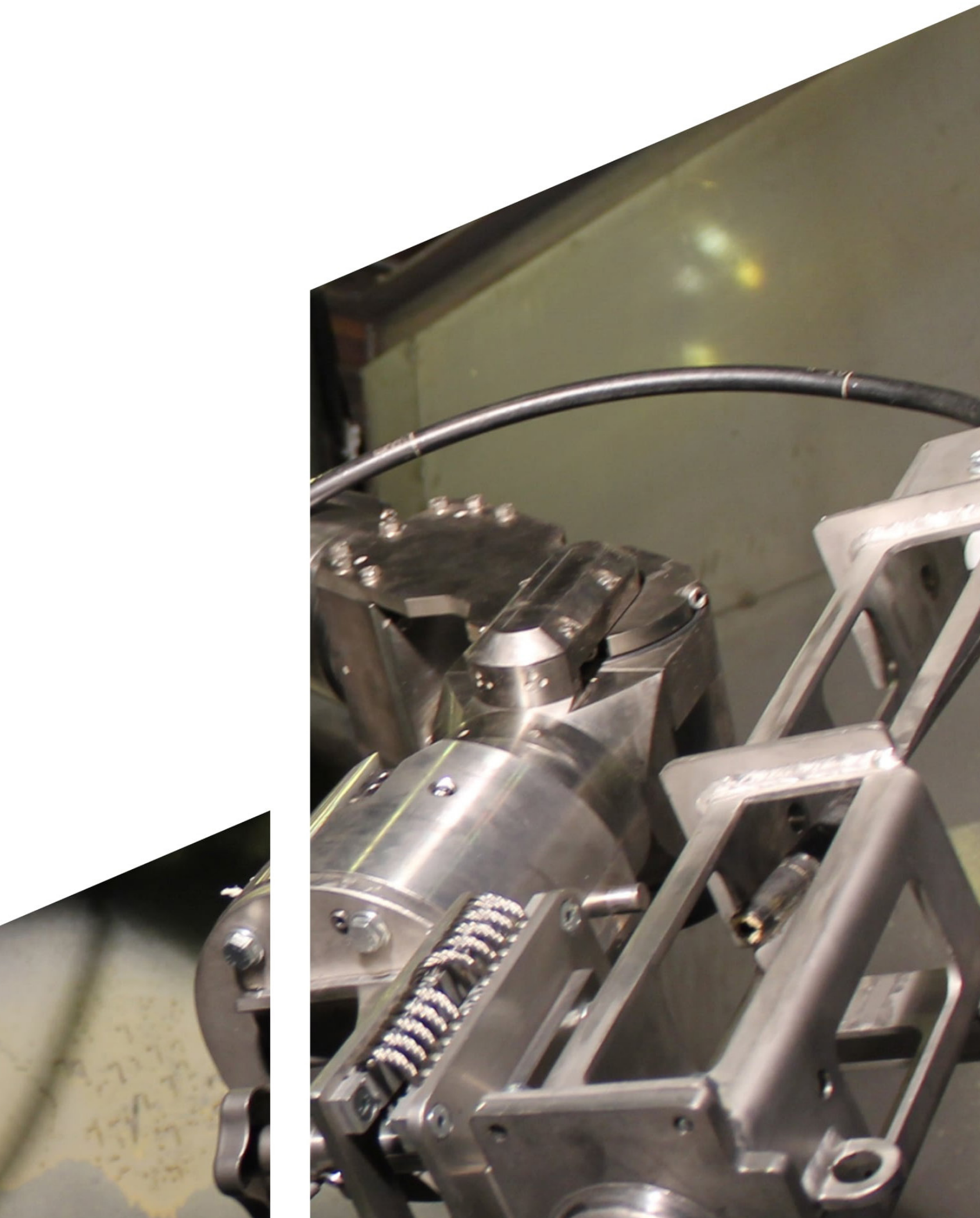
COLOUR VERSIONS

OFFICIAL VERSIONS

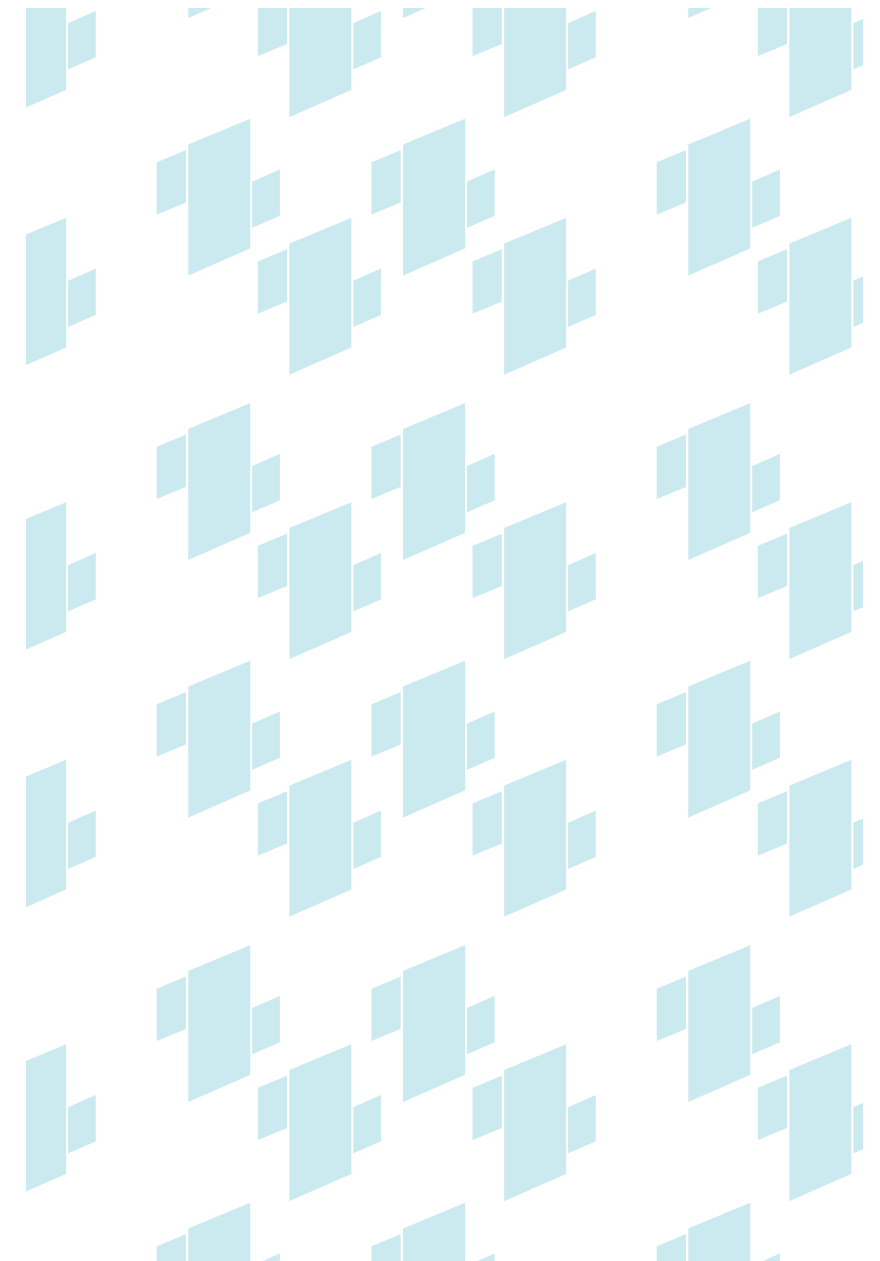


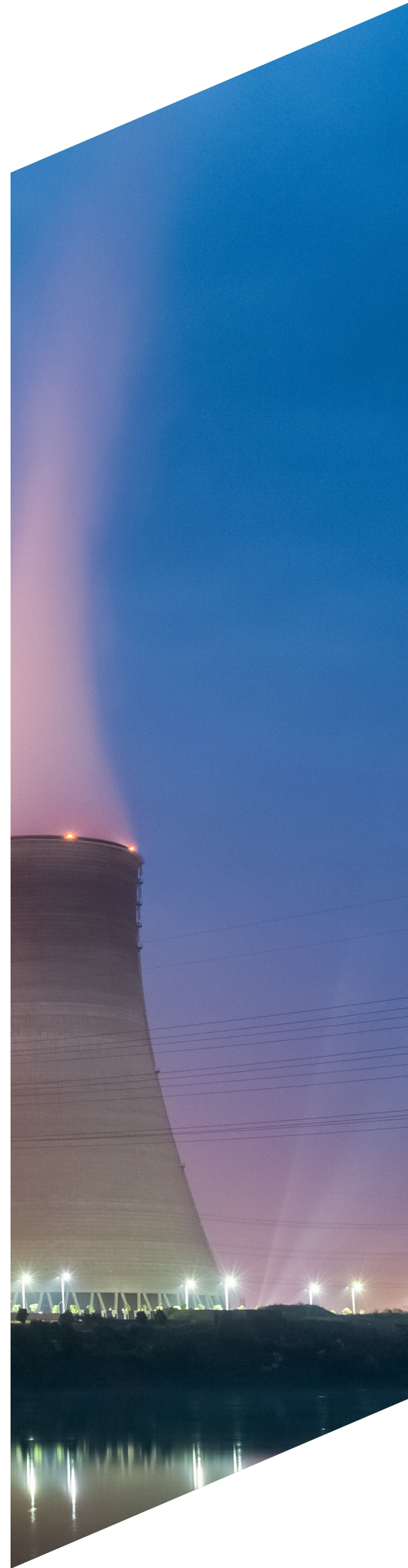
POSITIVE & NEGATIVE VERSIONS



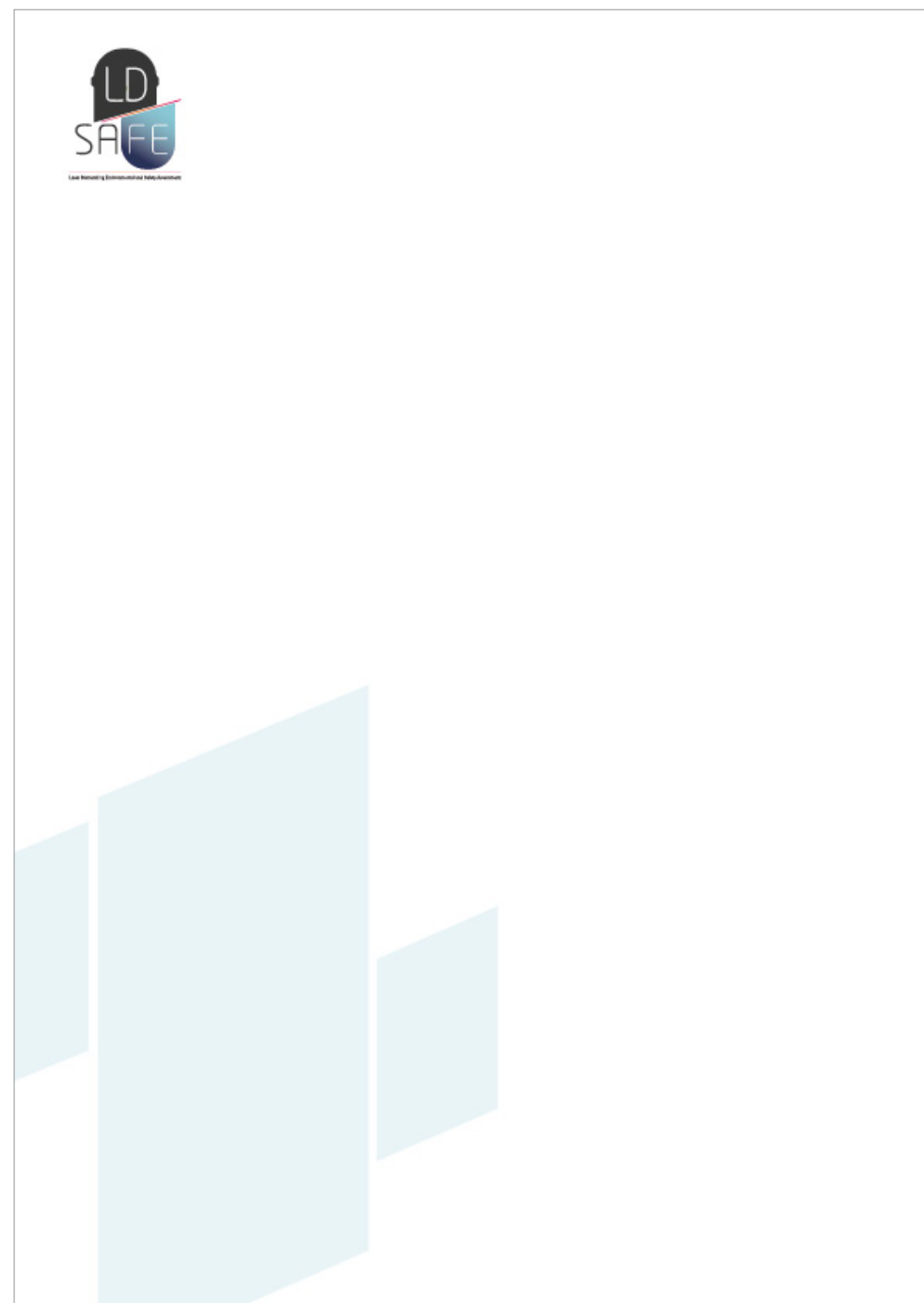


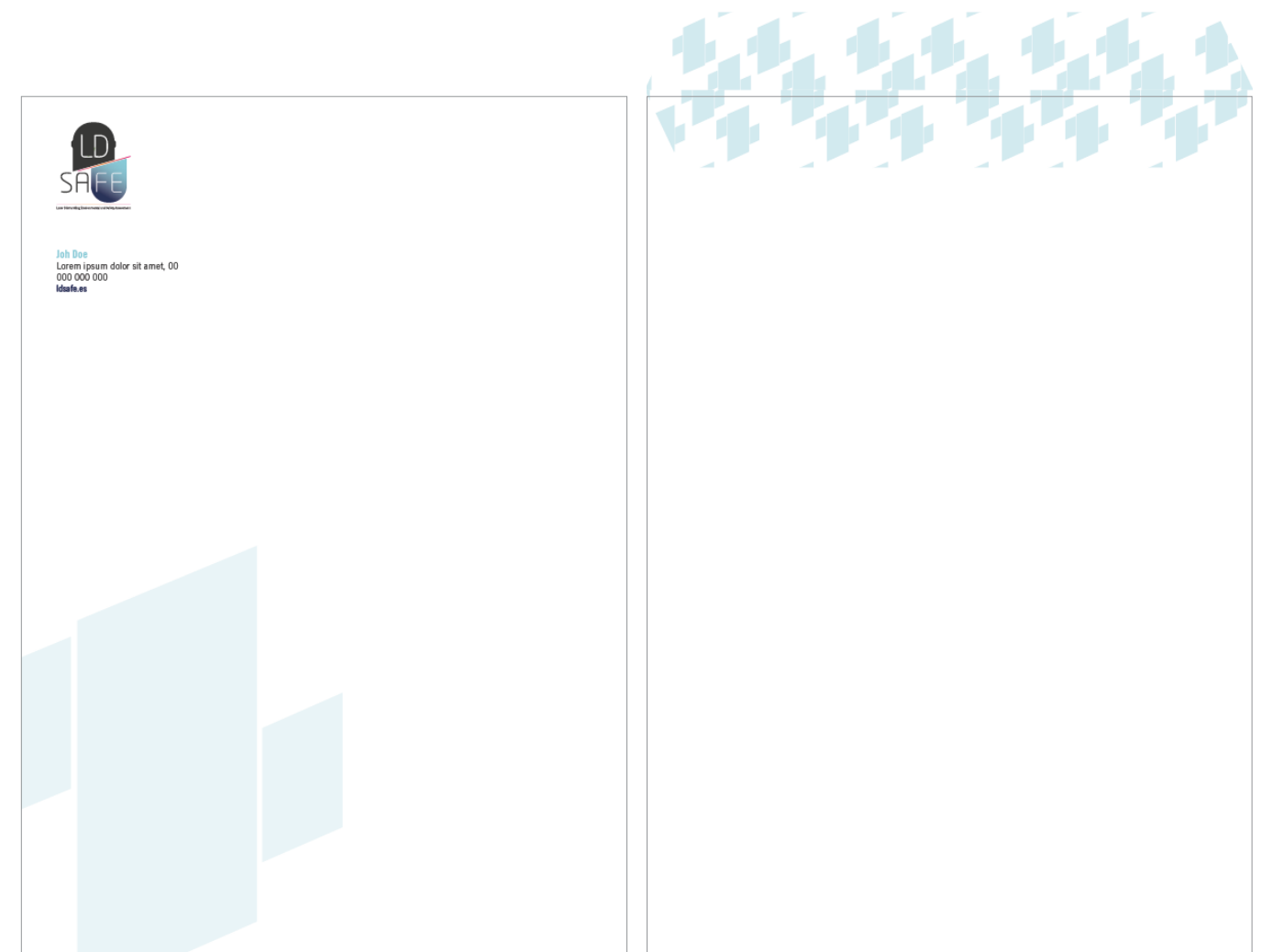
04
GRAPHIC
RESOURCES





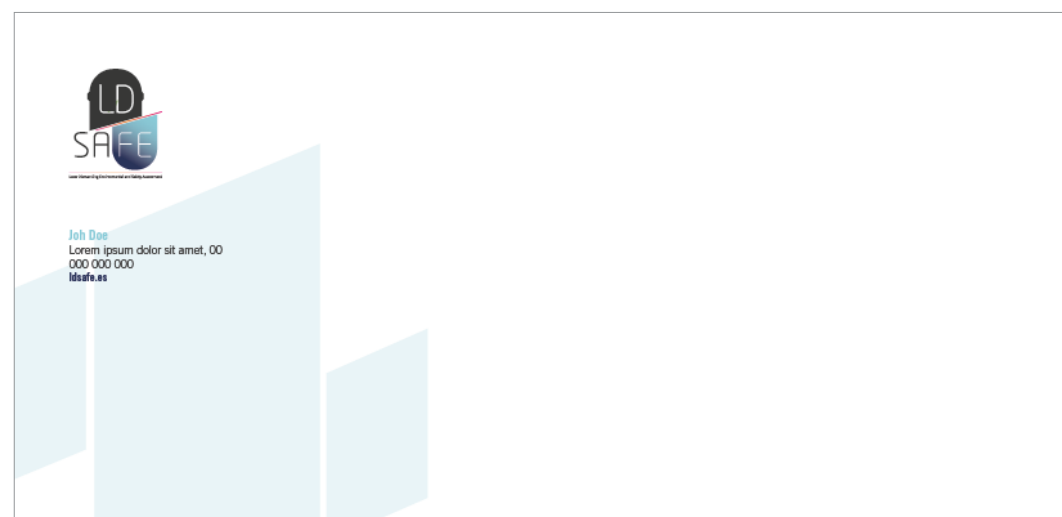
05
STATIONARY





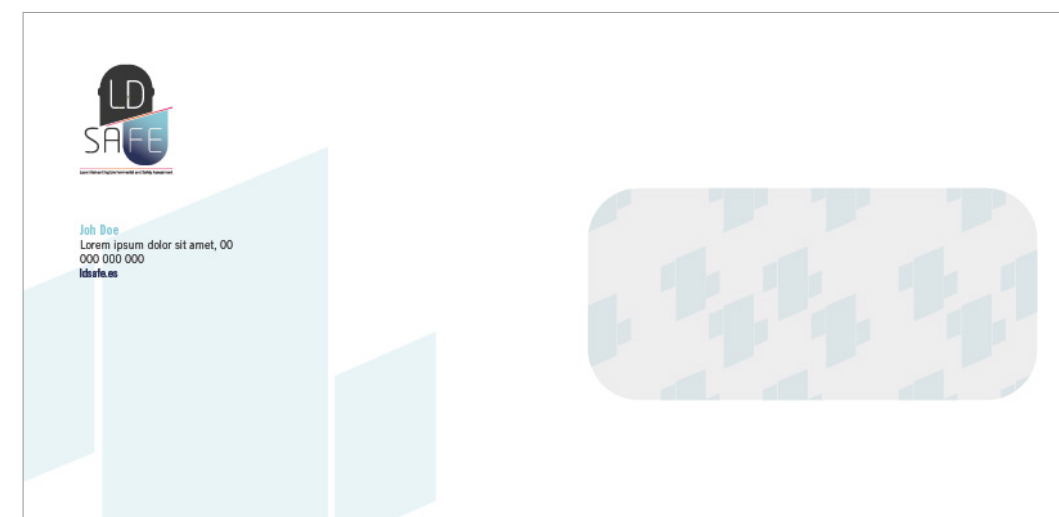
13

AMERICAN ENVELOPE



14

AMERICAN ENVELOPE (WINDOW)



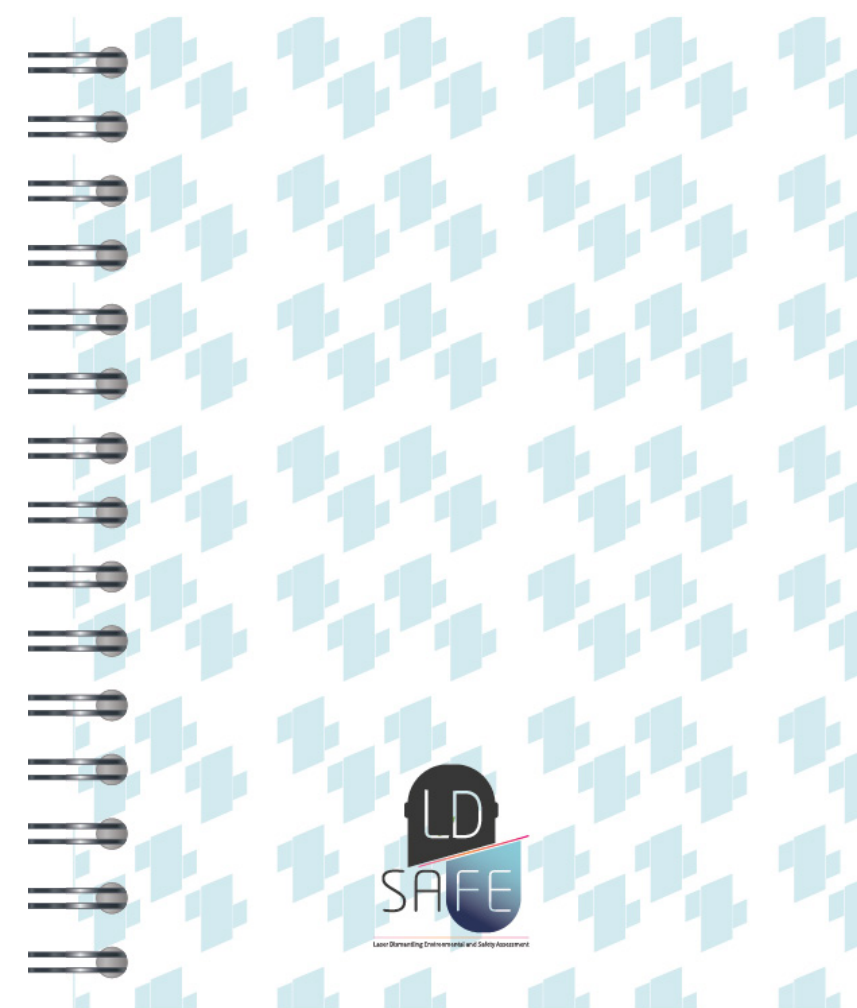
15

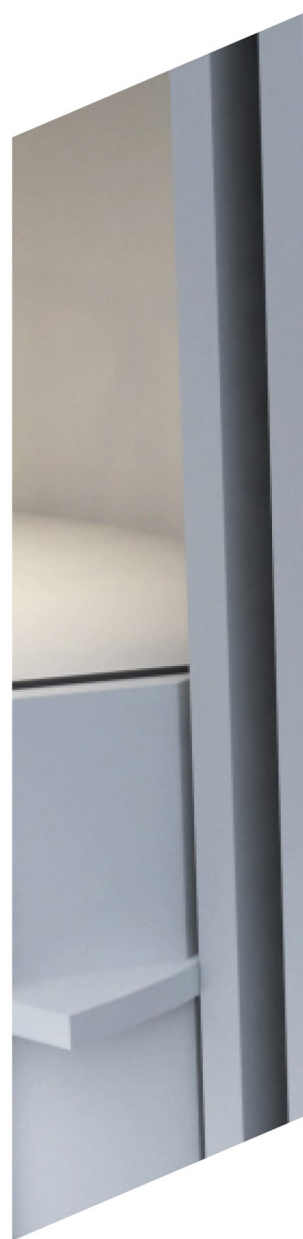
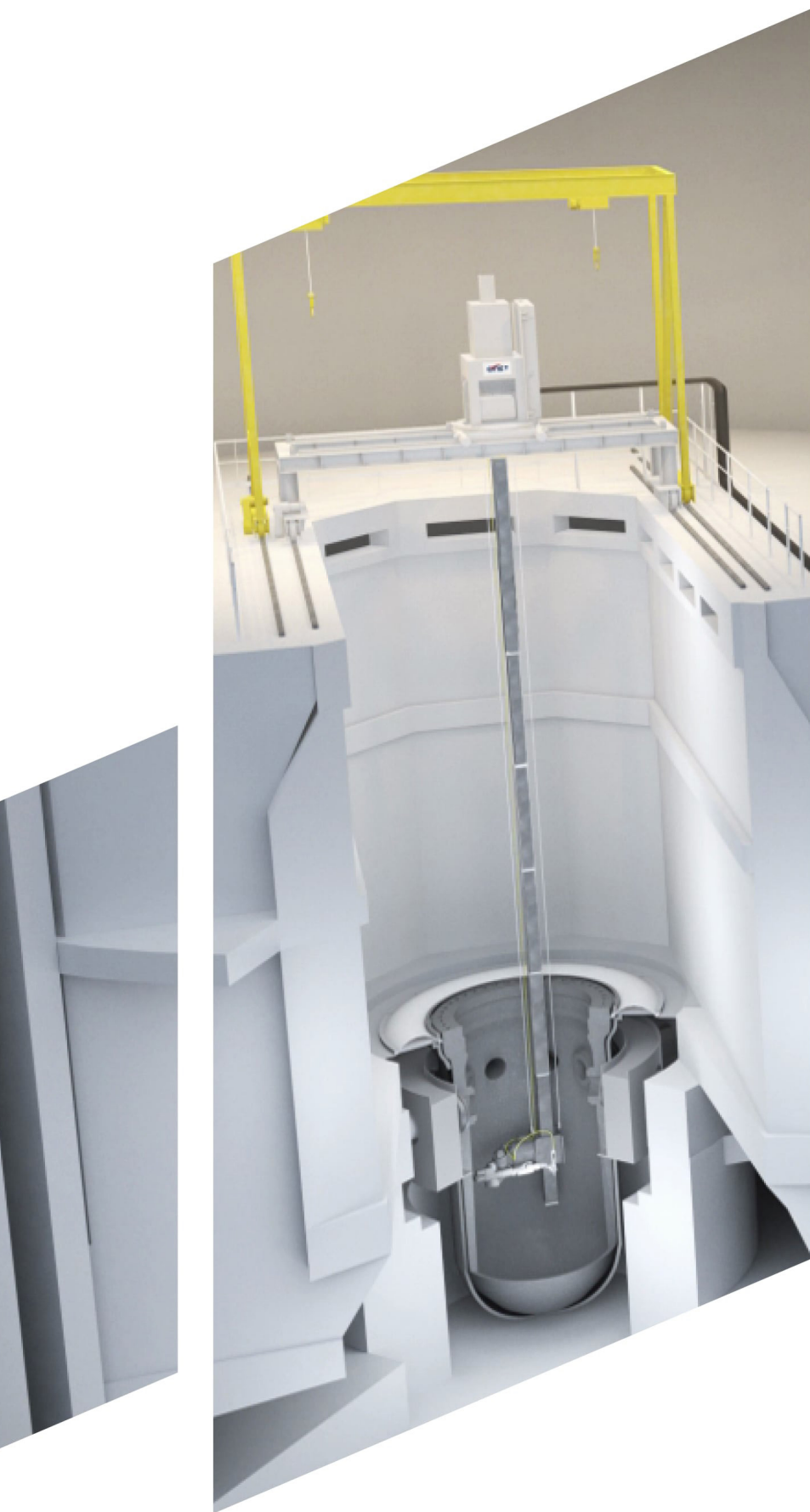
BUSINESS CARDS



16

OFFICE STATIONARY





Laser Dismantling Environmental and Safety Assessment