



Associació
d'empres
químiques
de Tarragona

Safety Management in AEQT

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Barcelona, 03 | 12 | 2024

1. OUR SECTOR & UNIQUE POSITION



AEQT - Who we are



AEQT - Who we are

Shared synergies

Refining



Chemical - Polymers



Chemicals – Other chemicals



Other (Logistics, Energy, Valorisation and waste management)



33 companies

Mostly large multinational chemical and petrochemical companies

Also, auxiliary or related companies: logistics, energy,...

AEQT: spokesperson for the sector, defends common interest, coordinates joint projects, forum where best practices are shared...



AEQT - Who we are



20 million
tonnes of chemical
products produced
annually



1
combined cycle power
plants with an overall
output of 400 MW



200,000 BPD
product pipeline



Transport by water and
product pipe



2
ethylene crackers with a
capacity of 1,370 Kt per year



3
chemical safety parks



140,000 t/year
production capacity
ethylene oxide



350 hectares
available for industrial
investment



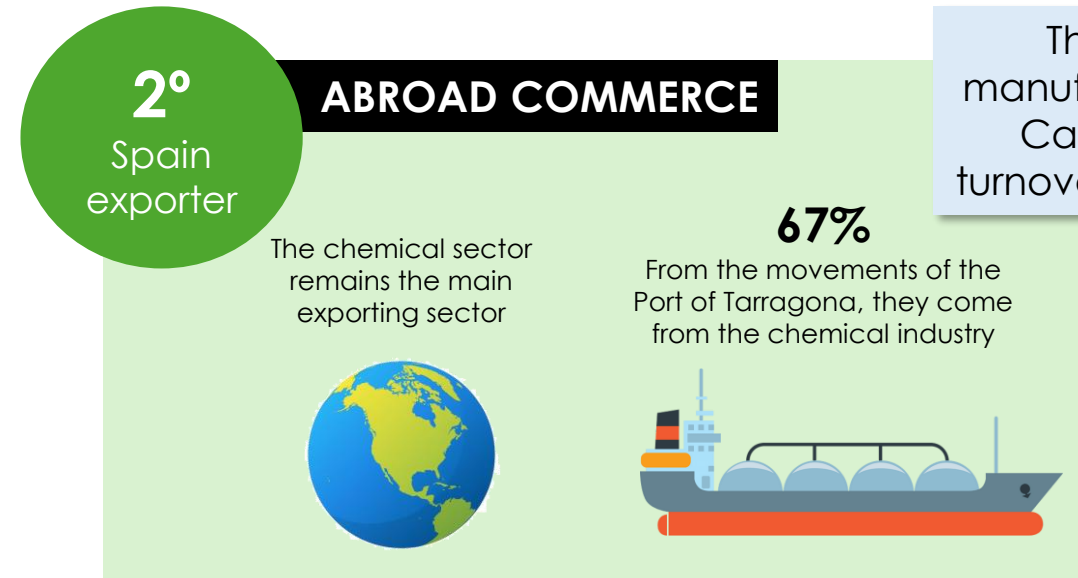
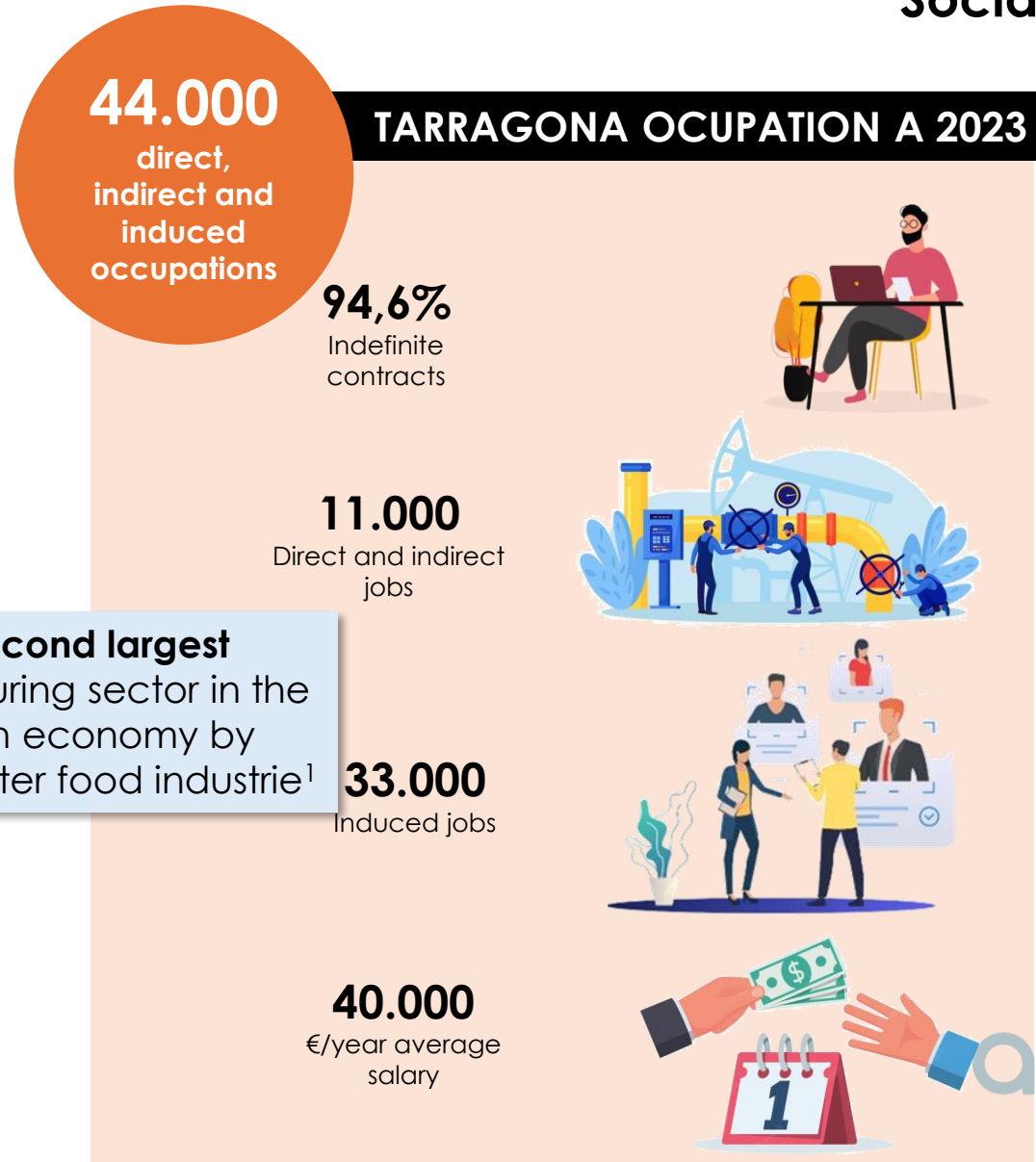
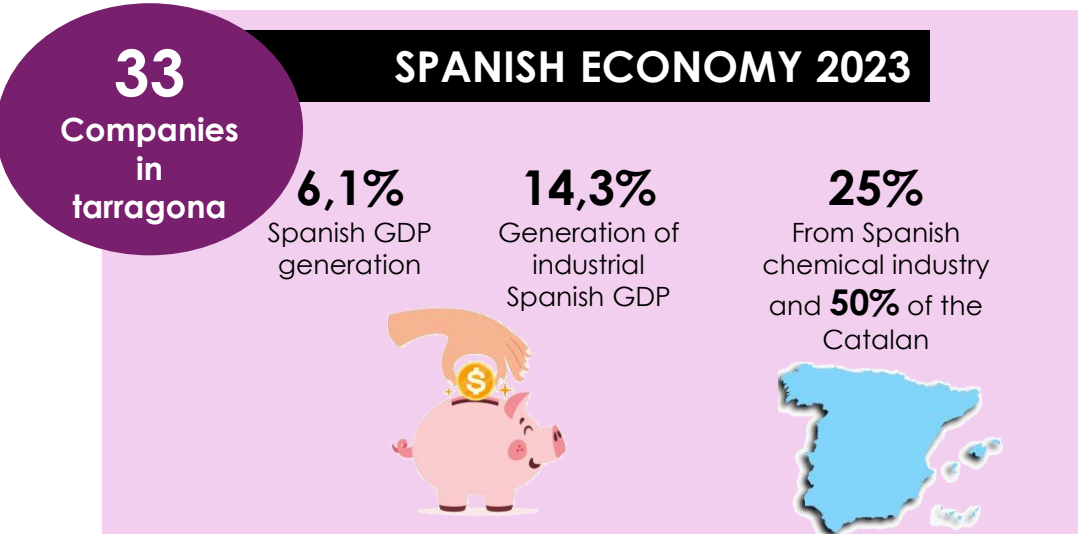
AEQT - Who we are

Global reference Chemical Complex in terms of safety, sustainability and competitiveness, with the recognition of the society in which we operate and generating value for the territory



AEQT - Who we are

Social Impact



The **second largest** manufacturing sector in the Catalan economy by turnover after food industrie¹

Social Contribution



Stable and quality employment



Indirect and induced activity for hundreds of companies



Pole of attraction in infrastructure



Innovative, essential and sustainable products, eco design



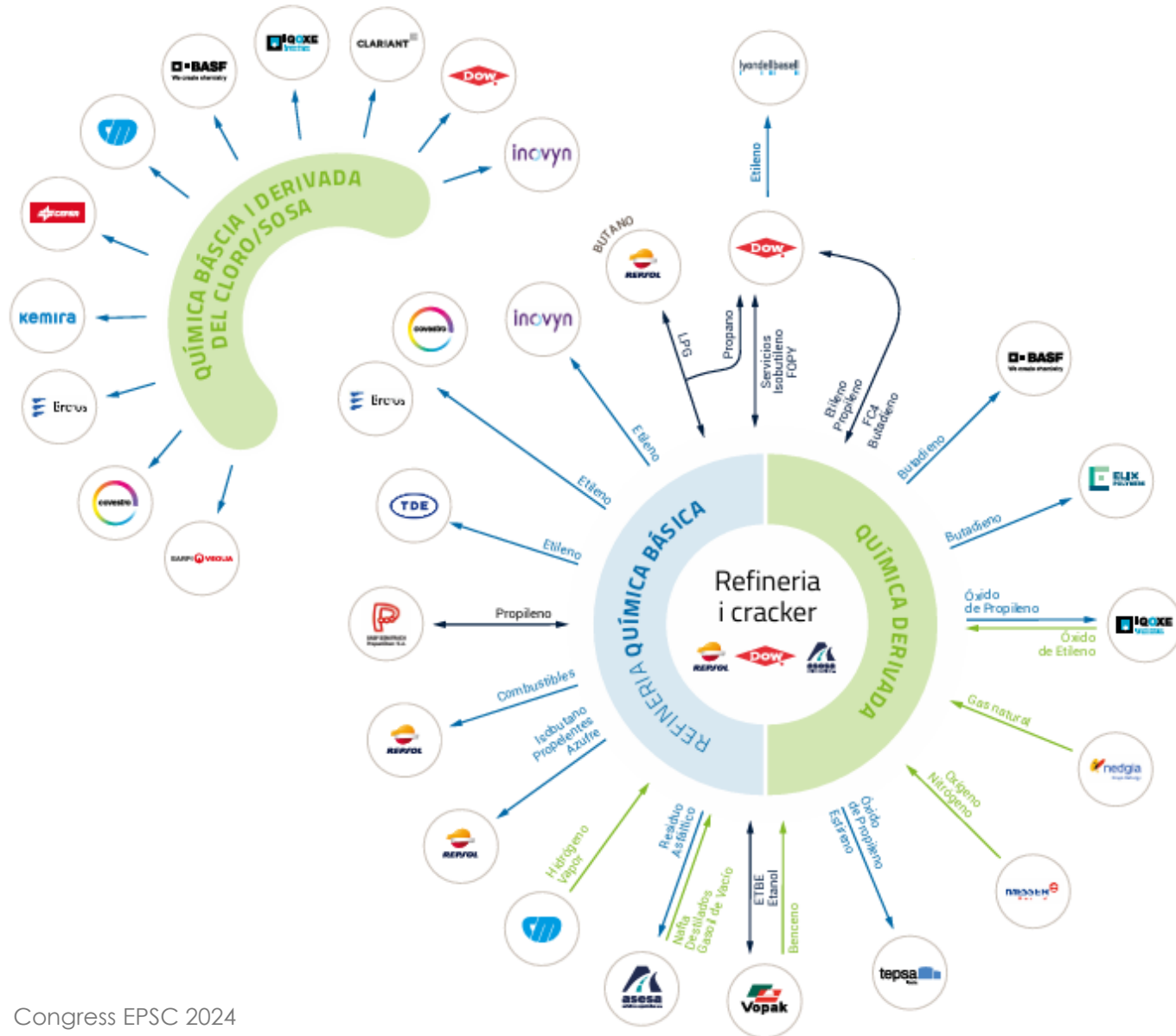
Knowledge and research engine. Dual training



Educational projects, recognition programme, cooperation, social action

AEQT - Who we are

Integration and synergies



Refineries, crackers, chlorine plants, keys and singular for chemical production

AEQT - Who we are

A strong, safe and Sustainable cluster



€500 M

Annual investment by AEQT companies

€75 M

Annual investment in HSE

€500

Average annual expenditure on training vs national average €70

34%

Renewable electricity

18%

Regenerated water

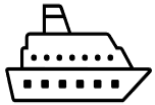
AEQT - Who we are

Integration and synergies

Pooled Services



- **Chemical Safety Parks.**



- **Marine pollution response parks.**



- **Interconnection** rack N-S DIXQUÍMICS.



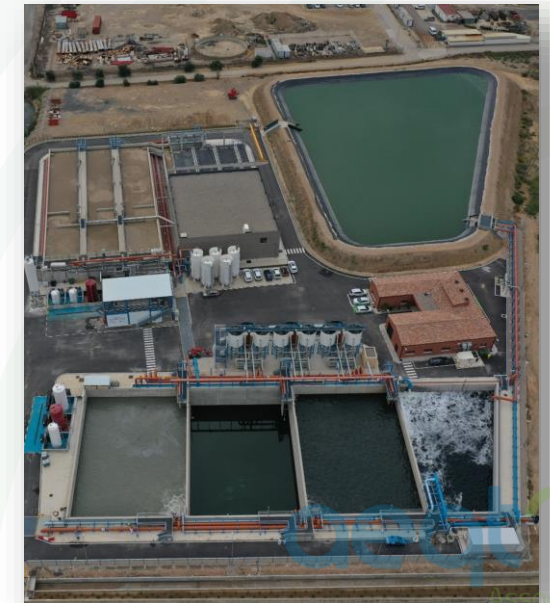
- Distribution of **industrial, reclaimed and CAT water**. AITASA.18% -> **33%**(2026) and **44%** (2028)



- Joint **effluent management**



- **Odor monitoring** (NasApp)



AEQT – WHERE we are

Chemistry and tourism, a model of success.

UNESCO
World Heritage

+20 M
Overnight stays

160.000
Accommodation places

600,000
Visitors per year. 63
cruises



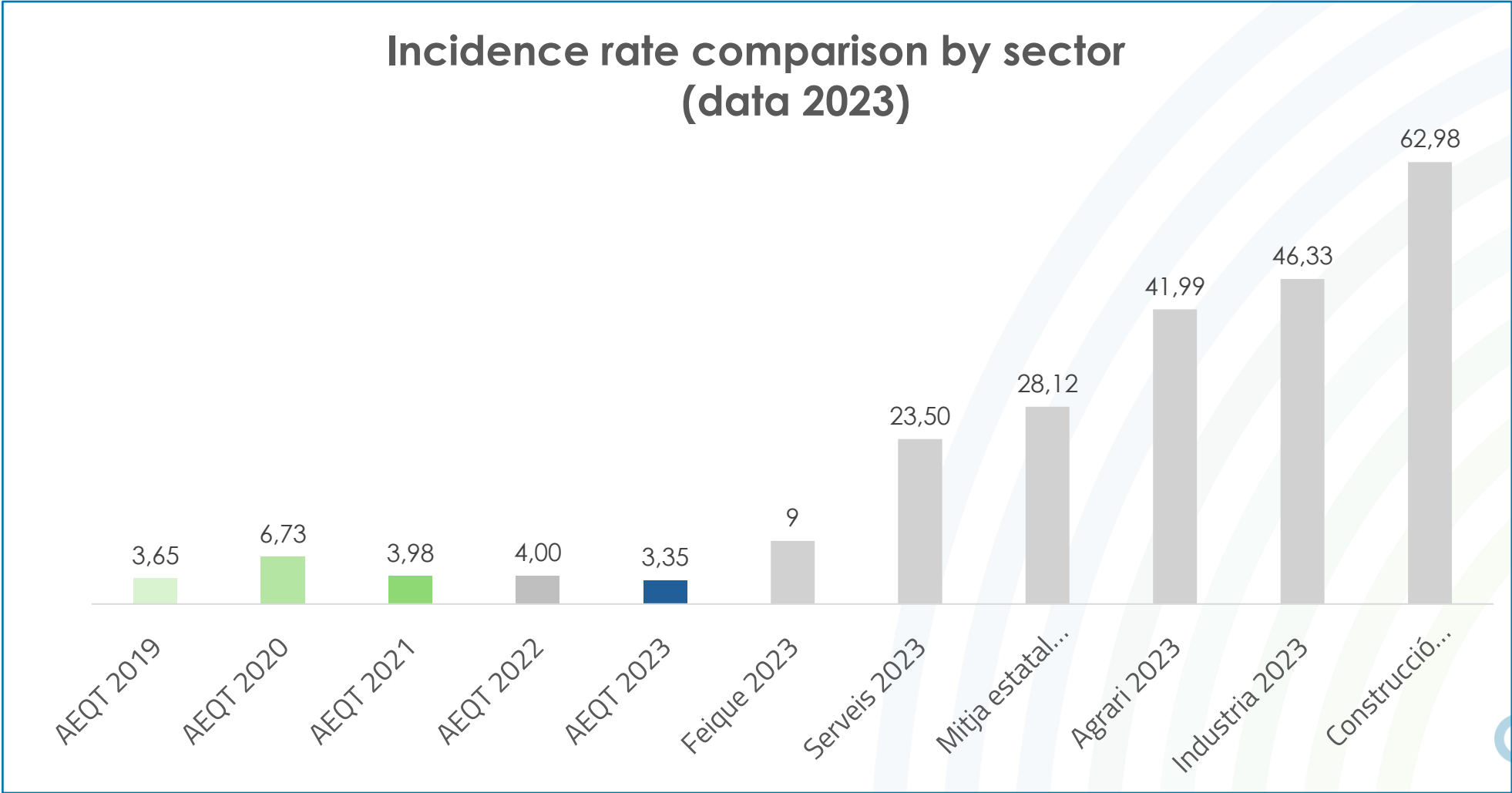
2. OUR SAFETY MANAGEMENT APPROACH

2

Towards zero accidents

SAFETY MANAGEMENT

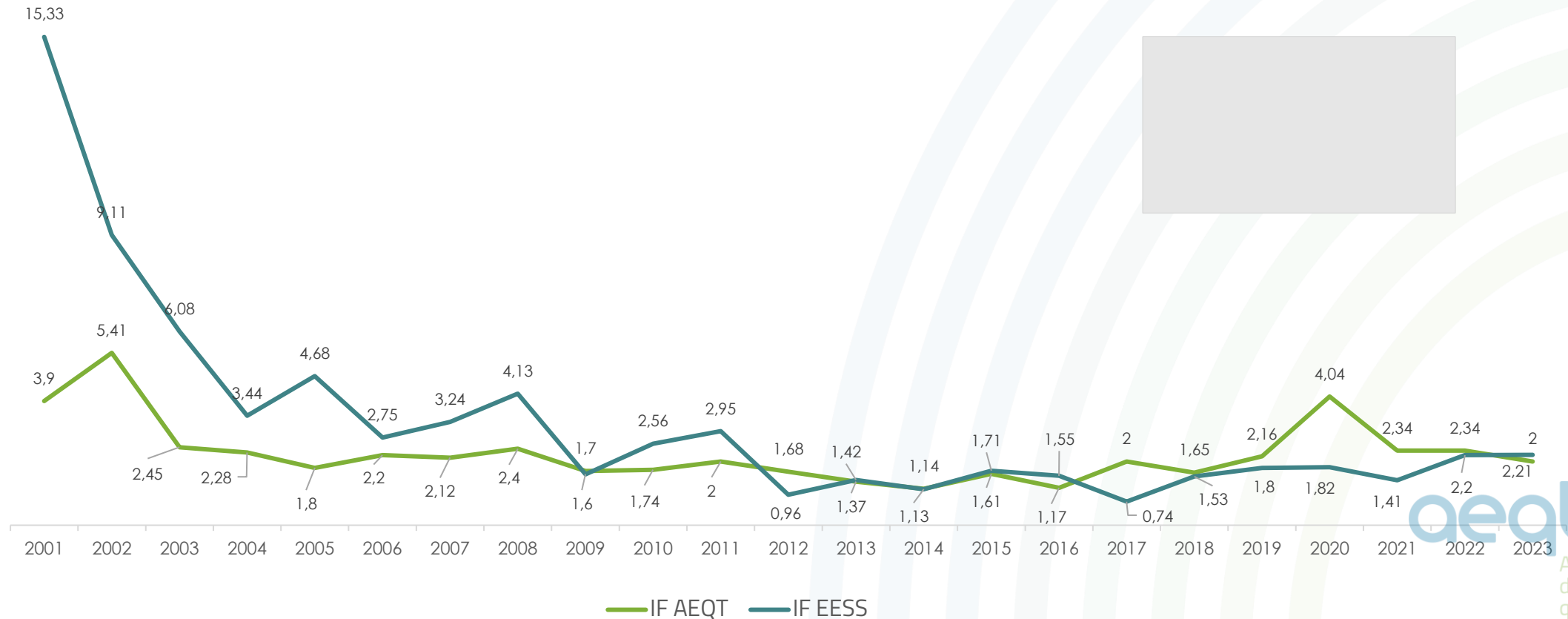
SAFETY INDICATORS



SAFETY MANAGEMENT

SAFETY INDICATORS

FREQUENCY RATES AEQT & COMPANIES SERVICES 2001- 2023

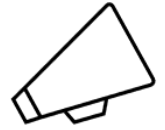


WHY does AEQT exist?

Excel in Safety



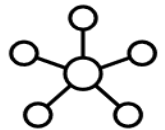
Sharing best practices, learning from each other and from incidents



Promoting positive contribution of the sector



Educating and making world class knowledge available to our employees, partners and society



Integration and synergies



WHY does AEQT exist?

Mission and Vision

Mission

Generate **shared agreements between companies** and with the environment, which enhance the **competitiveness** of the Tarragona chemical industry through a new **circular and decarbonized economy** model and with maximum transparency, which contribute **to the safe and sustainable development of the territory.**

Vision

To be a **global reference chemical complex** in terms of **safety, sustainability, competitiveness and innovation, with the recognition of the society** in which we operate, **generating value for the territory** and **responding to the global challenges of the energy transition.**

Strategic Plan

2024-28

Safety & Environment protection

- Sistema de mejora continua en seguridad
- Centro de conocimiento en seguridad y salud
- Sistema de mejora continua en medio ambiente
- Ser referencia industrial en calidad del aire

Decarbonization & Circularity

- Desarrollo del hidrógeno renovable
- Creación de un modelo eléctrico sostenible
- Impulso de la circularidad
- Impulso a la gestión sostenible del agua

Communications & Positioning

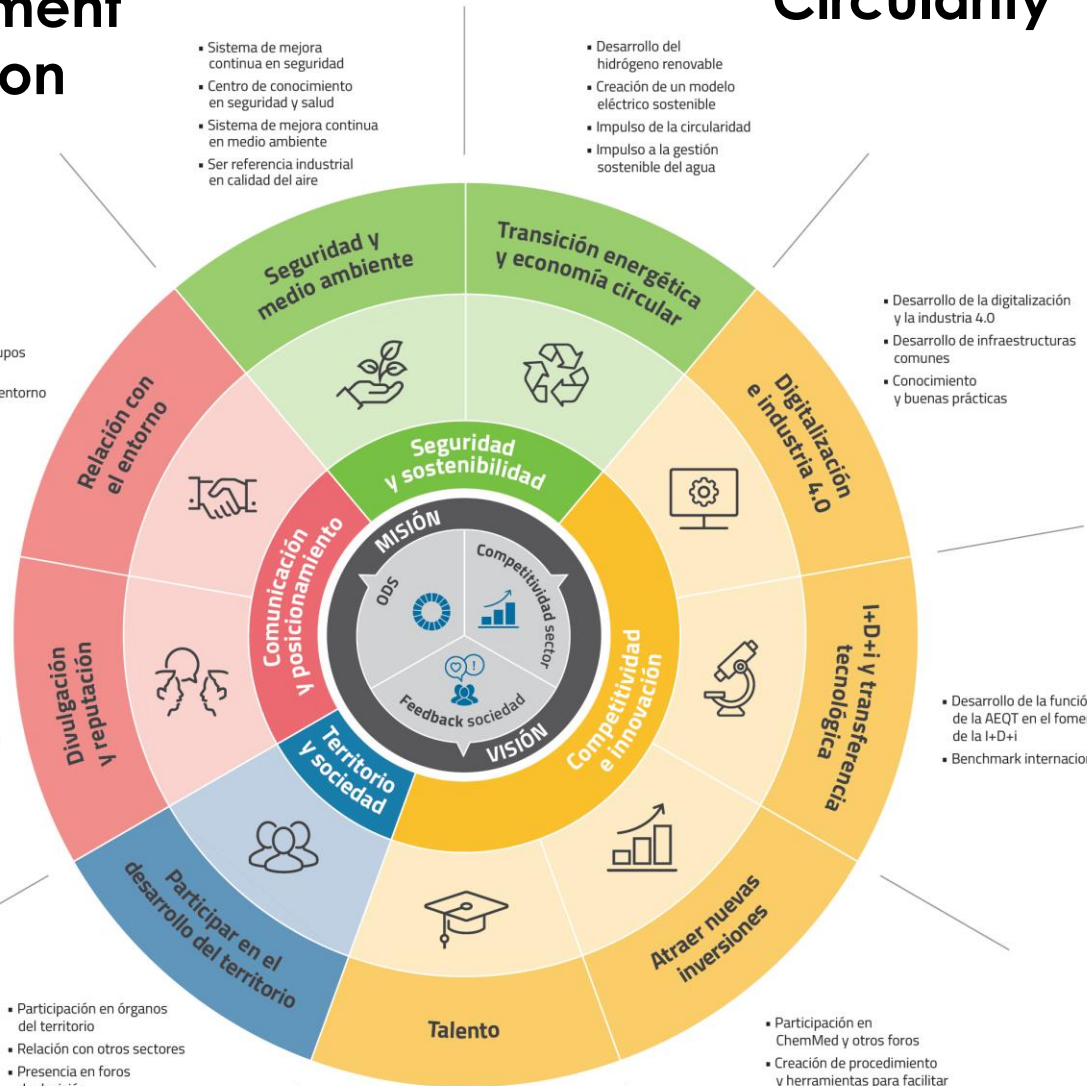
- Relación con los grupos de interés
- Monitorización del entorno

- Divulgación de los valores del sector
- Fomento de la información interna

Territory & Society

- Participación en órganos del territorio
- Relación con otros sectores
- Presencia en foros de decisión
- Compromiso con la formación y desarrollo del entorno

- Interacción con centros de formación
- Bolsa de trabajo
- Impulso de la formación dual
- Fomento de la igualdad de género y la inclusión



Competitiveness & Innovation

- Desarrollo de la digitalización y la industria 4.0
- Desarrollo de infraestructuras comunes
- Conocimiento y buenas prácticas

- Desarrollo de la función de la AEQT en el fomento de la I+D+i
- Benchmark internacional

- Participación en ChemMed y otros foros
- Creación de procedimiento y herramientas para facilitar inversiones

SAFETY MANAGEMENT

Relevant projects

1. Safety excellence Audits
2. Human Factor training
3. Contractor companies certification
4. Process Safety training

SAFETY MANAGEMENT

Safety excellence audits: Unique programme – Why and What

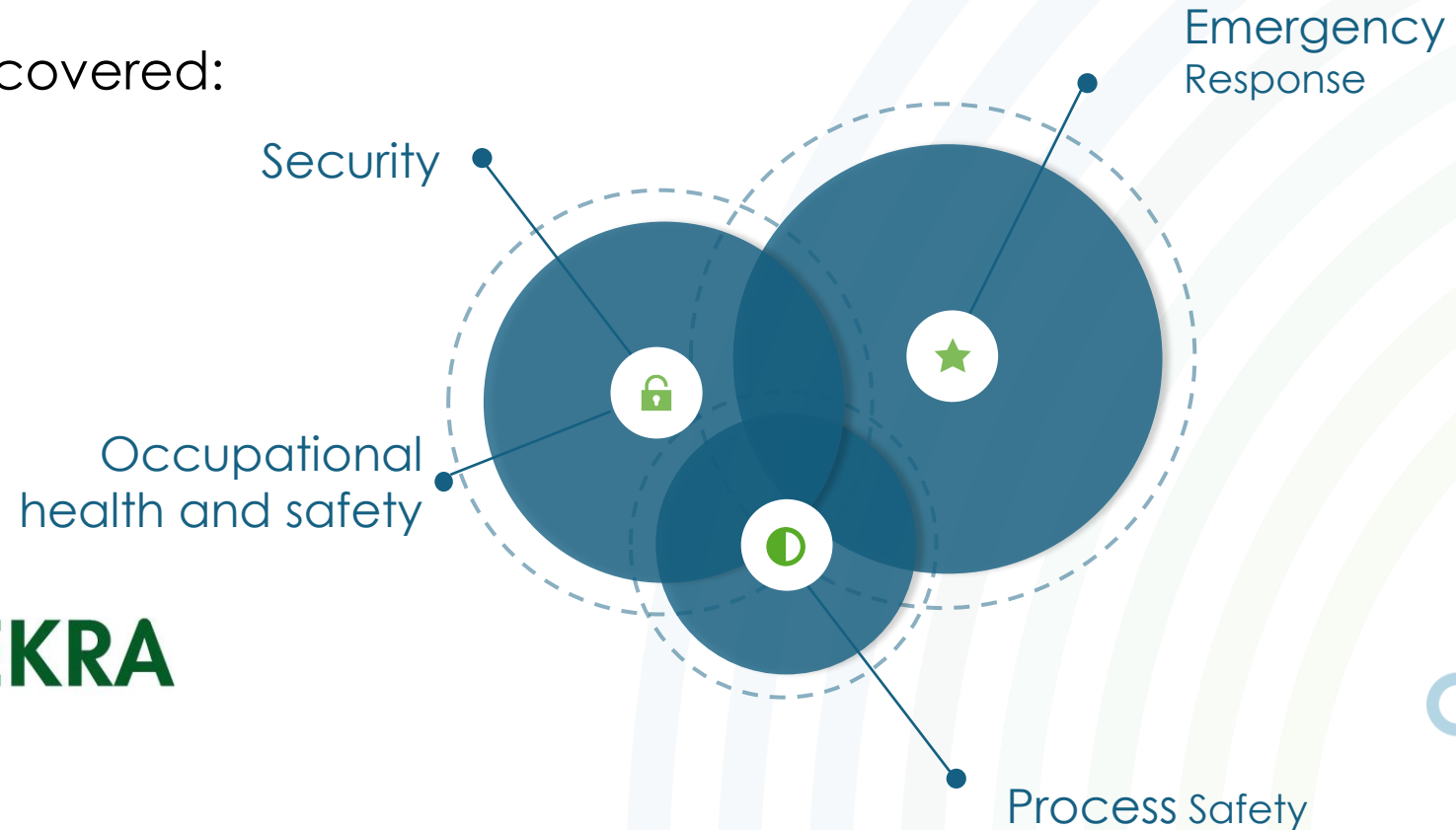
- ✓ The main **objective** of the AEQT is to **reaffirm its commitment to safety** through the creation of common standards for all member companies, above and beyond the legal requirements.
- ✓ It is a system based on the Responsible Care code.
- ✓ It is a condition to be associated



SAFETY MANAGEMENT

Safety excellence audits: Unique programme – How

- ✓ **AEQT with DEKRA:** Joint development of the handbook to 2021-2022. DEKRA is carrying out the audits from 2023 (pilot), planned to finish first round in 2025.
- ✓ The following areas are covered:



SAFETY MANAGEMENT

Training in HUMAN FACTOR

A tailored program on an industrial scale training facility to assess and understand how human factor impacts well trained employees supported by cutting-edge technology

Addressed to :

Shift Managers

Assistant Shift Managers

Production/plant operators

Middle Management

Maintenance Supervisors

Panelists

Technicians

Duration: 4 hours

Attendees: +80

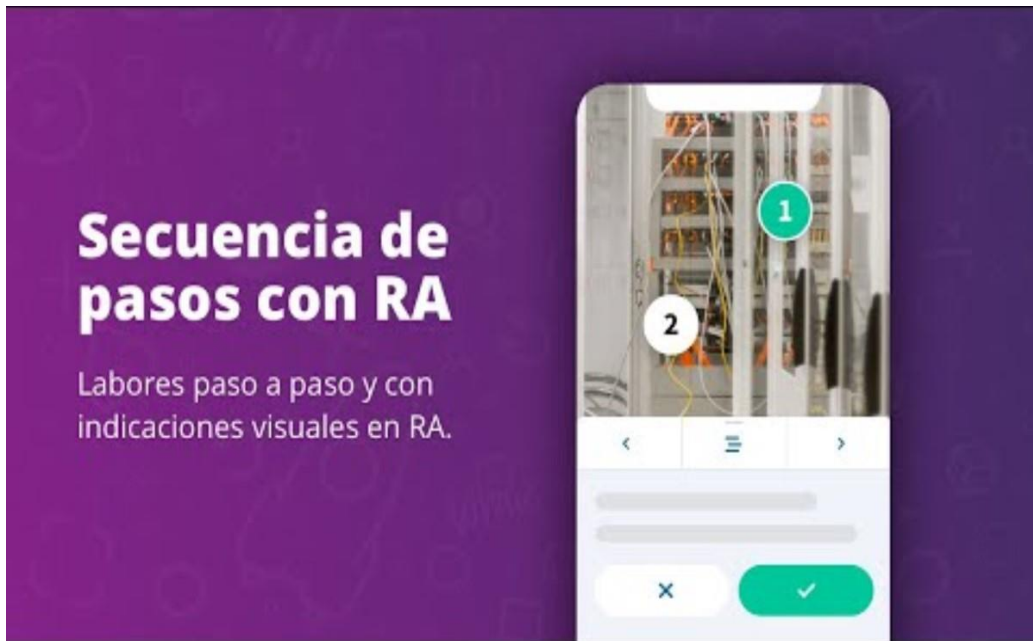


SAFETY MANAGEMENT

Training in HUMAN FACTOR

Period: 2021-2025

Site: *Parque Químico Norte*



The methodology proposed for the Human Factors training project linked to the AEQT is based on a combination of 3 elements:

- **Practical dynamics in a real environment** (industrial installation simulator located at Parcs Químics de Tarragona).
- **Use of Augmented Reality** to generate an interactive experience with high added value by superimposing fictitious virtual elements on our vision of reality, avoiding real exposure to health and safety risks during the training process.
- **Space in the classroom to reflect on the precursors of human error** and its link with the decision-making processes put into practice during the dynamics.

SAFETY MANAGEMENT

Process Safety Training

Pioneering Process Safety training: Developed and delivered by Industry experts and SME's, public administration and University URV, addressed to technical operations roles.

- Duration: **30 hours**
- **Two editions so far:**
 - o 2022-2023
 - o **+60 assistants**

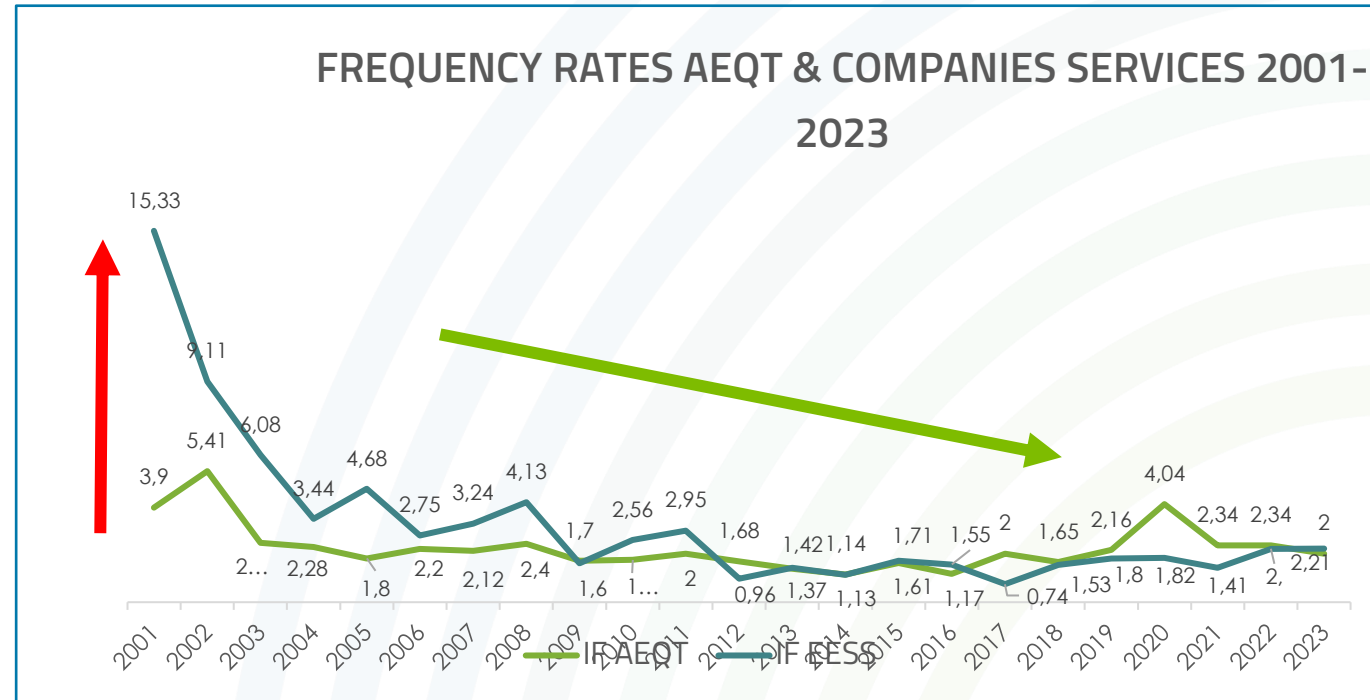


SAFETY MANAGEMENT

Safety and Quality Certifications

✓ Joint projects with the **Association of Service Companies of Tarragona (AEST)** since 2007.

- **Quality qualification** certification for **service companies** since 2018.
- **Safety Training Qualification** in service companies since 2010
 - 2000 persons/yr



SAFETY MANAGEMENT

Safety and Quality Certifications

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Safety qualification certification in **service companies** since 2007.

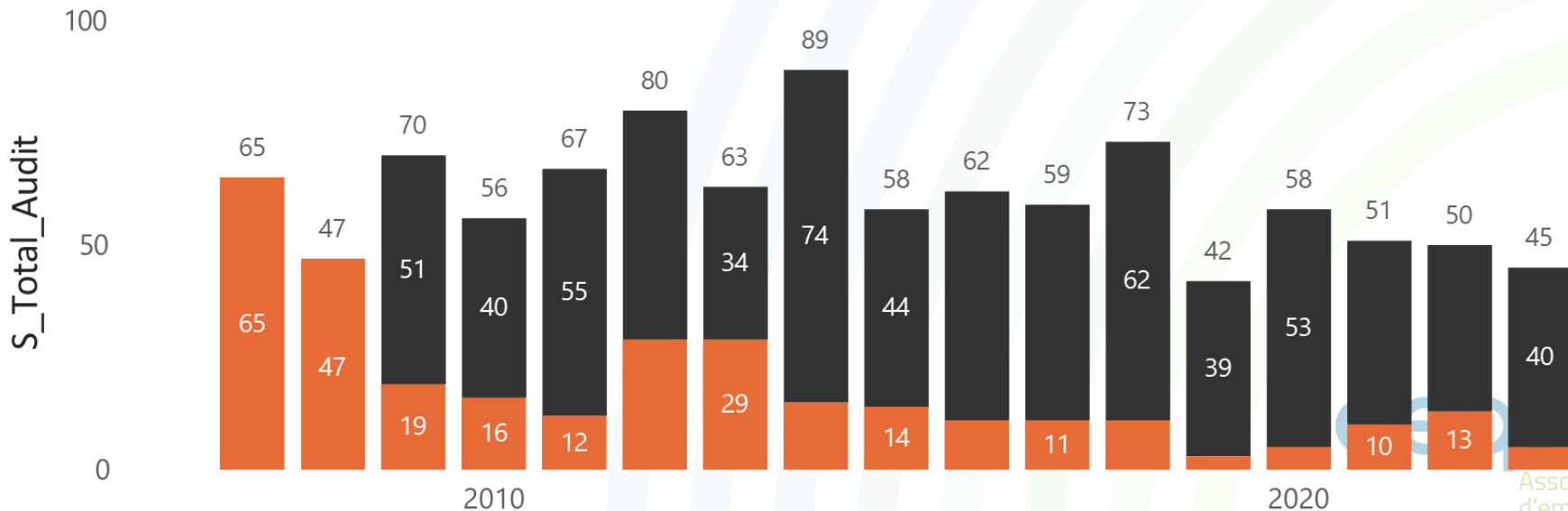


Safety **FIRST.**



SEGURIDAD AUDITORÍAS POR AÑO

TIPO ● Inicial ● Renovación

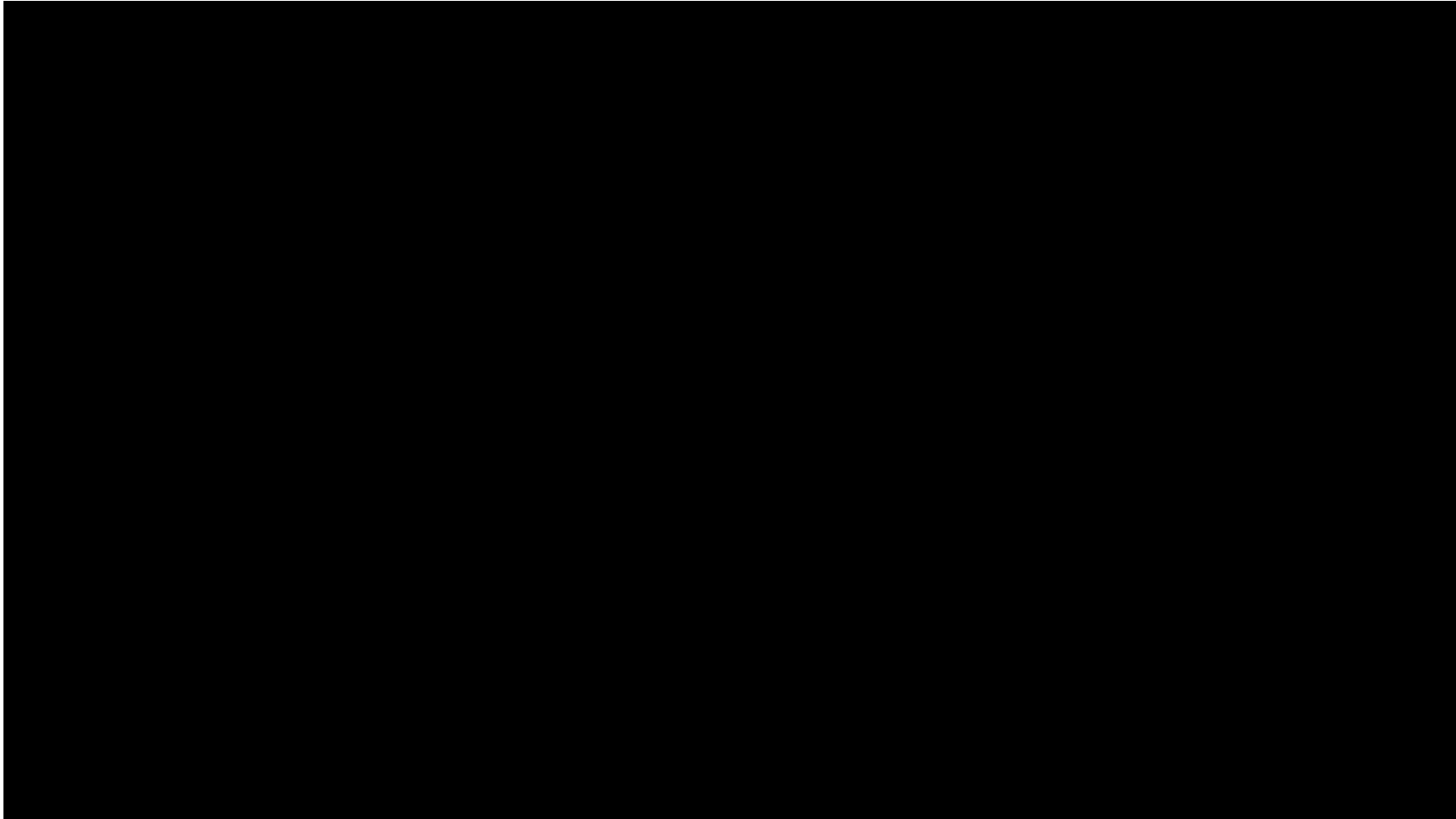


1120
Cumulative
audits

171 Qualified
companies

SAFETY MANAGEMENT

Chemical Safety Stations



Integration and synergies

The AEQT's **Chemical Safety Stations** are company fire stations that provide services to companies in the petrochemical plants of Tarragona and act in the event of an accident or emergency in the companies of the petrochemical plants of Tarragona.

CHALLENGES

4

4.Challenges: competitiveness in a decarbonised and circular economy

Challenges of the sector

Safety Excellence is the Only way

- To achieve and maintain safety excellence.
- Engage in safety new generations
- Gain social acceptance

Development/consolidation of technologies:

- To achieve the final goal of 0 emissions.
- Use of recycled raw materials.
- Total circularity of water.

Regulation:

- Legal security.
- Business friendly admin – Reduce bureaucracy

Infrastructures:

- Basic layout of the Mediterranean Corridor for rail connection with Europe.
- Completion of A-27.





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Thank you!