PREVENTIVE CULTURE IN A CHANGING WORKPLACE:

KEYS TO REDUCING ACCIDENT RATES

ie FOUNDATION

DKV

DKV-IE CHAIR
ON EMPLOYEE HEALTH
AND WELL-BEING

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Foreword

In an environment of increasing uncertainty, companies face the challenge of adapting with agility to new market demands. Factors such as geopolitical instability, rapid technological evolution or demographic changes have accelerated the need for more flexible organisational structures. In order to respond to these challenges, many companies have adopted strategies such as outsourcing, temporary employment and internal rotation, seeking to optimise their resources and remain competitive. However, the new approach to talent management is not without consequences.

This study, developed within the framework of the DKV-IE Chair on Employee Health and Well-being, seeks to shed light on the implications of these new forms of workplace organisation, analysing how they affect the health and safety of employees.

Through a rigorous analysis of collected data and interviews with experts in the field of occupational risk prevention, it identifies that safety cannot be treated as a secondary issue to productivity. Beyond regulatory compliance, the key to reducing accident rates lies in fostering an organisational culture that prioritises prevention, continuous training and leadership committed to the well-being of teams. When leaders actively reinforce the importance of safety and integrate it into business strategy, more resilient and sustainable work environments are built.

It is essential to remember that each accident at work represents much more than a statistic: behind each case there are people, families and communities affected by the consequences of an injury or fatality at work. This report invites reflection on the role we all need to play in building safer workplaces.

From the DKV-IE Chair, we reaffirm our commitment to research and the dissemination of knowledge that contributes to achieving a healthier society.

We hope that this study will serve as a starting point for driving changes that will not only benefit organisations, but also protect the people who make day-to-day operations possible.

May you find this report enriching.

Rocío Bonet

Director of the DKV-IE Chair on Employee Health and Well-being

EXECUTIVE SUMMARY

1.

In order to increase labour flexibility, companies often adopt practices such as: External recruitment, temporary employment, internal rotation.

2.

These strategies have a direct impact on occupational accident rates.

Hiring workers from other sectors and relying on high proportions of temporary contracts increase workplace accidents.

3.

Relying on temporary workers can weaken team cohesion and reduce compliance with safety standards.

4.

Talent management and leadership emerge as key elements to mitigate the risks of workplace accidents.

A preventive culture, with training, communication and recognition, reduces occupational accidents.

ACCIDENT RATE DATA IN SPAIN (2023)

Among the top 4 in the EU in terms of occupational accident rates

539 584

Accidents with sick leave

581

Fatal accidents

95 273

Accidents in manufacturing industry

METHODOLOGY (2006 and 2015)

340 814
Observations at establishment level by year

69 662 Manufacturing establishments analysed
from
57 117 French companies

18 Surveys with experts in prevention of occupational risks
from
13 Medium and large-sized Spanish companies

Average annual number of occupational accidents calculated per year for each **10 000** hours worked

MAIN CONCLUSIONS

LABOUR FLEXIBILITY FACTORS INCREASE ACCIDENT RATES

- External recruitment, in particular from other sectors
- Temporary contracts
- Internal rotation
- Production pressures

ORGANISATIONAL LEVERS MITIGATE RISKS: PREVENTIVE CULTURE

- Talent management: effective socialisation, continuous training, internal communication, recognition and avoidance of punishment, psychological security
- Role models, security prioritisation, confidence building

FINAL CONCLUSION

Operational flexibility can have a major hidden cost: **worsening job security**. It is essential that such flexibility comes with practices and leaders focused on creating **safe working environments.**

1. Introduction

Before analysing the findings of our research in depth, it is essential to contextualise the current situation regarding occupational accidents and to understand the impact that the new dynamics of workplace flexibility are having on workers' safety. This section presents key data on the trends in occupational accidents in Spain and the European Union (EU), together with a review of the main flexibility practices adopted by companies and their possible implications for the prevention of occupational risks. This framework provides an understanding of the challenges faced by the organisations and a basis for the interpretation of the results obtained in the study.

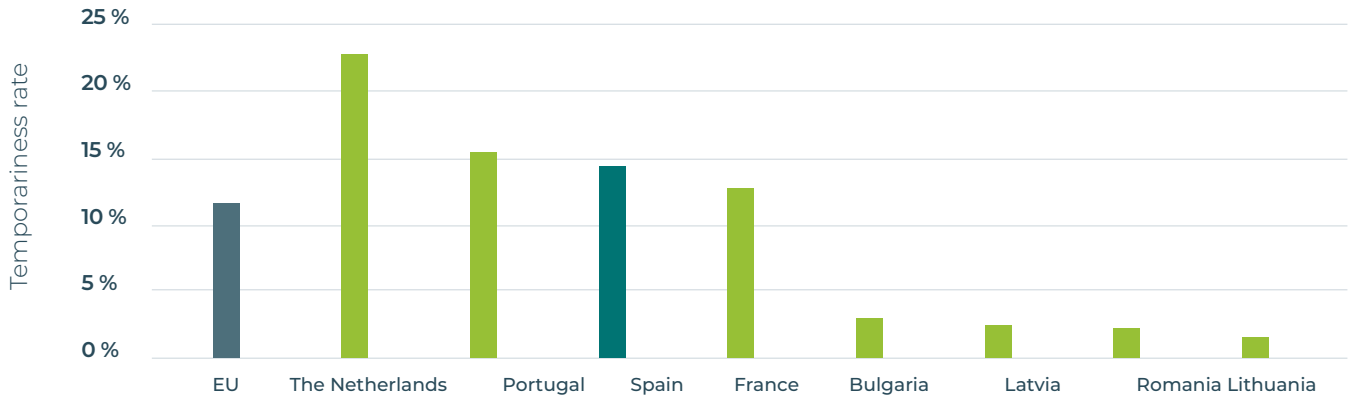
1.1. FLEXIBLE LABOUR PRACTICES

Today's organisations face an increasing need for flexibility in their employment systems, due in part to the growing uncertainty of the environment in which they operate. Aspects such as geopolitical instability, rapid technological evolution or demographic changes make it difficult for companies to predict their talent needs even in the near future, which may result in critical skills shortages within companies. Not surprisingly, this lack of the skills needed to help companies reinvent themselves and compete in today's environment is a recurring concern among CEOs around the world, according to, for example, the PwC Global CEO Survey (2024).

Faced with the challenge of forecasting their human capital needs even in the short term, **companies are turning to human resources (HR) practices that allow them to adjust their staffing to changing demand over time.** These include those aimed at achieving **flexibility within the organisation**, such as **rotation** between different jobs, which is key not only to facilitating the filling of vacancies and meeting specific staffing needs (Foote *et al.* 2021), but also to promote the development of multi-skilled profiles within the organisation. **Flexibility** is also sought in the external labour market, e.g. by **outsourcing** part of the workforce to temporary work agencies (TWAs) or by hiring staff on a temporary basis. Temporary employment is, by nature, more flexible, since unlike workers with permanent contracts, those linked to the company by a temporary contract can be easily dismissed without breaking psychological or legal ties, which makes it easier to adapt the workforce to the requirements of demand.

These trends are clearly reflected in the statistics both globally and domestically in Spain. With regard to internal rotation, a recent study (Hunter 2000) shows, for example, that approximately 49 % of companies employ this practice, especially the larger ones; this percentage continues to grow year on year. On the other hand, according to data from the International Labour Organisation (ILO) (2022) the share of temporary jobs in the world has been increasing over the last three decades, from 14.6 % to 27.8 %. **In Spain, the percentage of workers with temporary contracts reached 17.2 % in 2023** (20.7 % if fixed-term contracts are included) (INSST 2024), making Spain the third country in the European Union with the highest rate of temporariness (i.e. the highest percentage of employees with temporary employment contracts), behind only Portugal and the Netherlands (Eurostat 2024b) (see **Figure 1**). On the other hand, according to INE data (2023), the number of employees hired through a temporary agency was 768,100 in 2023, 4.3 % of the total, compared to 3.8 % in 2022.

Figure 1. **EU countries with the highest and lowest temporary employment rates (%) in 2024**



Source: Own elaboration based on data extracted from Eurostat.

The adoption of adaptability practices can offer significant competitive advantages to companies, but what is the impacton the health and well-being of workers? This study aims to explore this issue further by focusing on a key issue for employees: safety in the workplace.

Academic research has shown that **high turnover, temporary employment or production pressures have a negative impact on occupational safety, resulting in increased accident rates.** For example, a study on the Spanish market (Guadalupe 2003) shows that temporary workers in Spain are 7.2 % more likely to have an accident due to lower investment in training and human capital. Empirical research has also found that precariousness and pressure to demonstrate high performance are associated with higher accident rates (Fabiano *et al.* 2001). [1] In addition, having little seniority in the company - an unavoidable factor when staff turnover is high - has also been linked to higher rates of workplace accidents and injuries. Closely related to the above, other studies have found that accident rates increase significantly during the peak production phases at companies, mainly due to the need foraccelerated recruitment ofnew and inexperienced workers (Ruhm 2000; Asfaw *et al.* 2011).

Overall, the scientific evidence shows that **these new market dynamics lead to increased vulnerability of workers** and aggravate the risks of accidents, which underlines the need for more effective preventive policies. Although the accident rate has decreased in recent years, accidents at work are still a worrying reality, with significant costs for individuals, companies and society. Indeed, in addition to an undeniable impact on the health and well-being of workers, they entail a high economic cost. Specifically, according to recent estimates, this cost is equivalent to about 0.49 dollars for every dollar a family spends on food in the United States (NSC, n.d.). For its part, the European Agency for Safety and Health at Work (EU-OSHA 2017) estimates that work-related accidents and illnesses cost the EU at least 476 billion euros per year. In Spain, occupational accidents and illnesses cost 15,367,811,312 euros in 2023, equivalent to around 3 % of GDP (Sánchez Herrera 2024). To put this data in perspective, if we were to divide the total cost of occupational accidents by the number of taxpayers in our country, the average expenditure per taxpayer would be approximately 698.54 euros per year.

It is therefore imperative to understand **which organisational practices should be implemented** in order to mitigate or at least minimise the risks of accidents in the workplace.

[1] The aforementioned work by Fabiano et al. (2001) corroborates this pattern in Italy, showing that temporary workers have accident rates 2.6 to 3.8 times higher than permanent workers, mainly due to lack of experience, insufficient training and pressure associated with production targets.

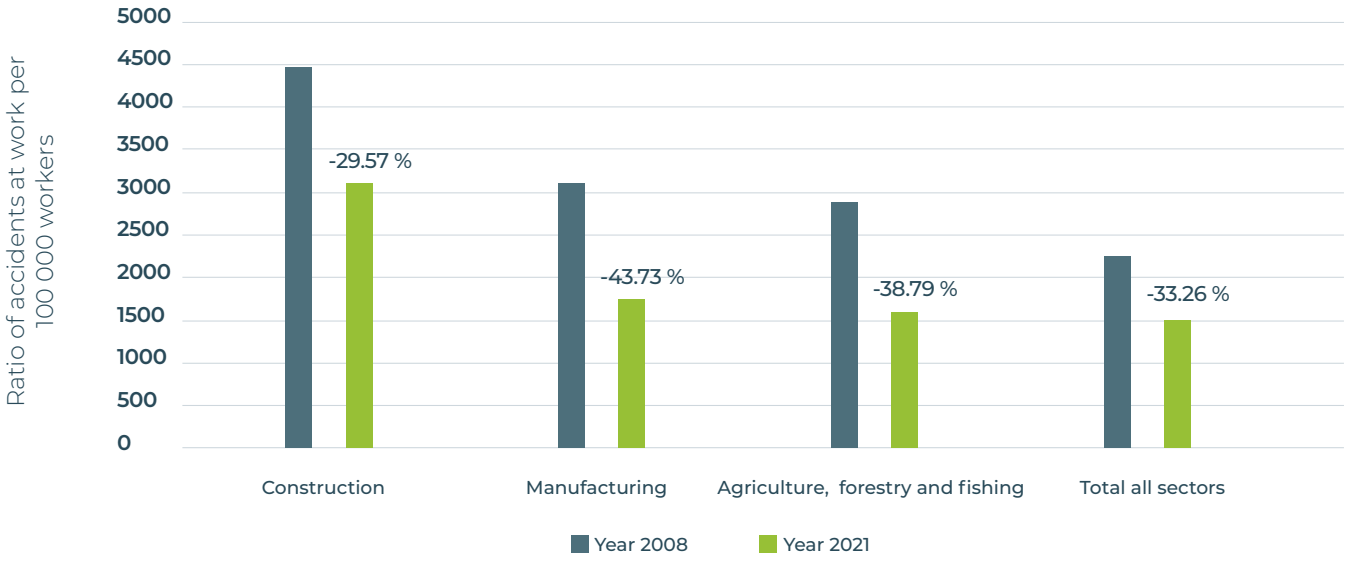
1.2. THE ACCIDENT RATE: A PENDING TASK

Over the last decades, **the EU has experienced a general trend towards a reduction in the incidence of workplace accidents,** thanks in large part to the implementation of increasingly stringent occupational risk prevention (ORP) regulations and a growing awareness of the importance of safety at work. However, despite considerable progress in reducing the accident rate in many countries, the accident rate remains high, and is particularly alarming in some sectors such as construction, manufacturing and primary sectors (see **Figure 2**).

In Spain, **during the second half of the 20th century, accidents at work were a worrying reality with millions of cases per year, many of them fatal.** This context led to the implementation, in 1971, of the National Plan for Health and Safety at Work [2], which together with the General Ordinance on Health and Safety at Work [3] from the same year, established an initial regulatory framework for the protection of workers. Currently, Law 31/1995 of 8 November on the Prevention of Occupational Risks [4] is the main Spanish legislation in this area, which recognises rights and obligations for both employers and employees in terms of health and safety in this field. Since its enactment, several adjustments have been made and complementary regulations have been adopted in order to strengthen the framework of protection against occupational hazards and adapt it to the current working environment.[5]

Despite regulatory progress, **Spain still has considerable accident rates.** In fact, according to

Figure 2. **Incidence rate of non-fatal occupational accidents at the workplace (per 100,000 workers) in the EU, in the three sectors with the highest accident rate**



Source: Own elaboration based on data extracted from Eurostat.

[2] Order of 9 March 1971 approving the Occupational Health and Safety Plan, *Official State Gazette* no. 60, 11 March 1971, https://www.boe.es/buscar/doc.php?id=BOE-A-1971-350.

[3] Orderof 9 March 1971 approving the General Ordinance on Health and Safety at Work, *Official State Gazette* no. 64, 16 March 1971, https://www.boe.es/buscar/doc.php?id=BOE-A-1971-380.

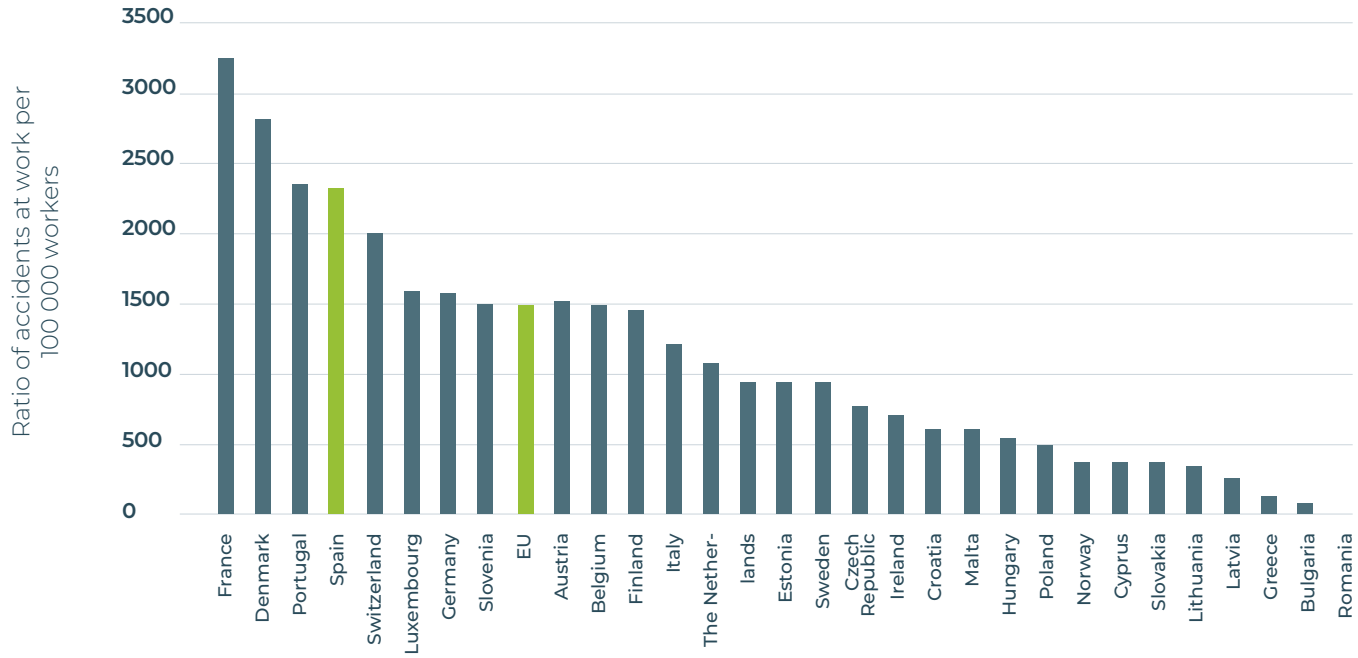
[4] Published in the *Official State Gazette* no. 269, 10 November 1995, https://www.boe.es/eli/es/l/1995/11/08/31/con.

[5] See, for example, Royal Decree 39/1997, of 17 January 1997, approving the Prevention Services Regulations, *Official State Gazette* no. 27, of 31 January 1997, https://www.boe.es/eli/es/rd/1997/01/17/39/con; Law 54/2003, of 12 December 2003, on the Reform of the Regulatory Framework for the Prevention of Occupational Risks, *Official State Gazette* no. 298, of 13 December 2003, https://www.boe.es/eli/es/l/2003/12/12/54; or the COVID-19 safety protocols.

Eurostat data, Spain was among the four countries in 2021 with the highest accident rate in the EU, well above the European average (see **Figure 3**). While this *ranking* may reflect, in part, differences between states in terms of mandatory reporting of occupational accidents, the numbers are alarming nonetheless.

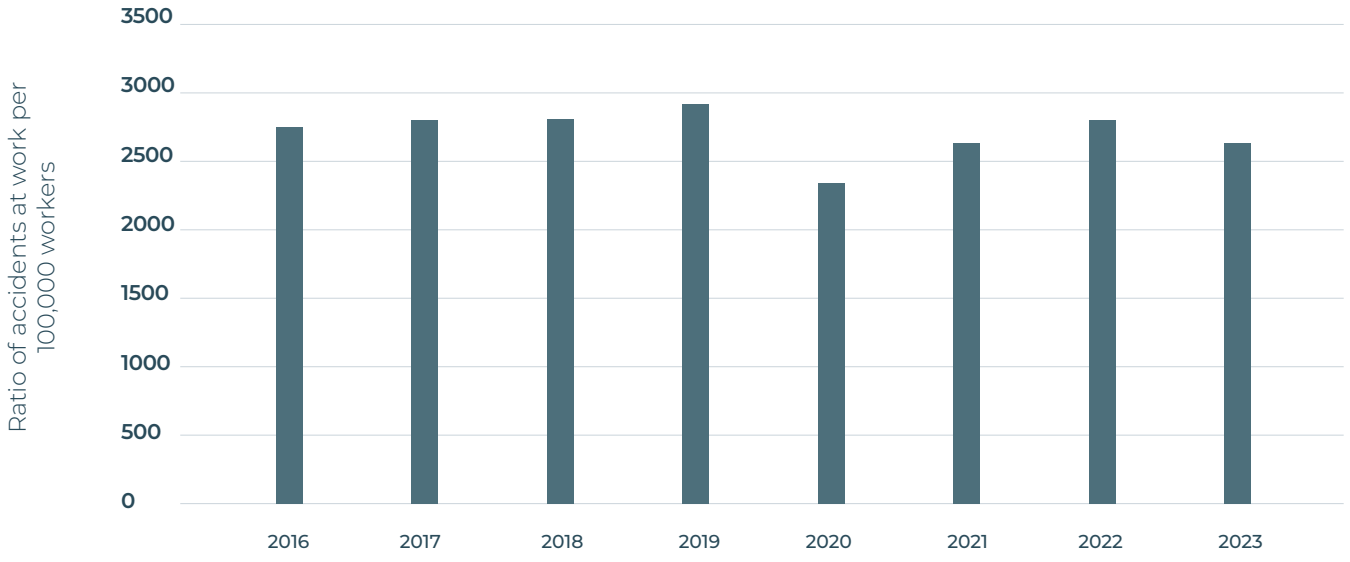
Data for the work cycle **from January to December 2023** indicate that the number of **lost-time accidents during the working day (excluding those occurring *in itinere*) was 539,584, of which 581 were fatal** (INSST 2024) (see **Figures 4** and **5**).

Figure 3. **Incidence rate of non-fatal occupational accidents at the workplace per 100,000 workers in EU countries, 2021**



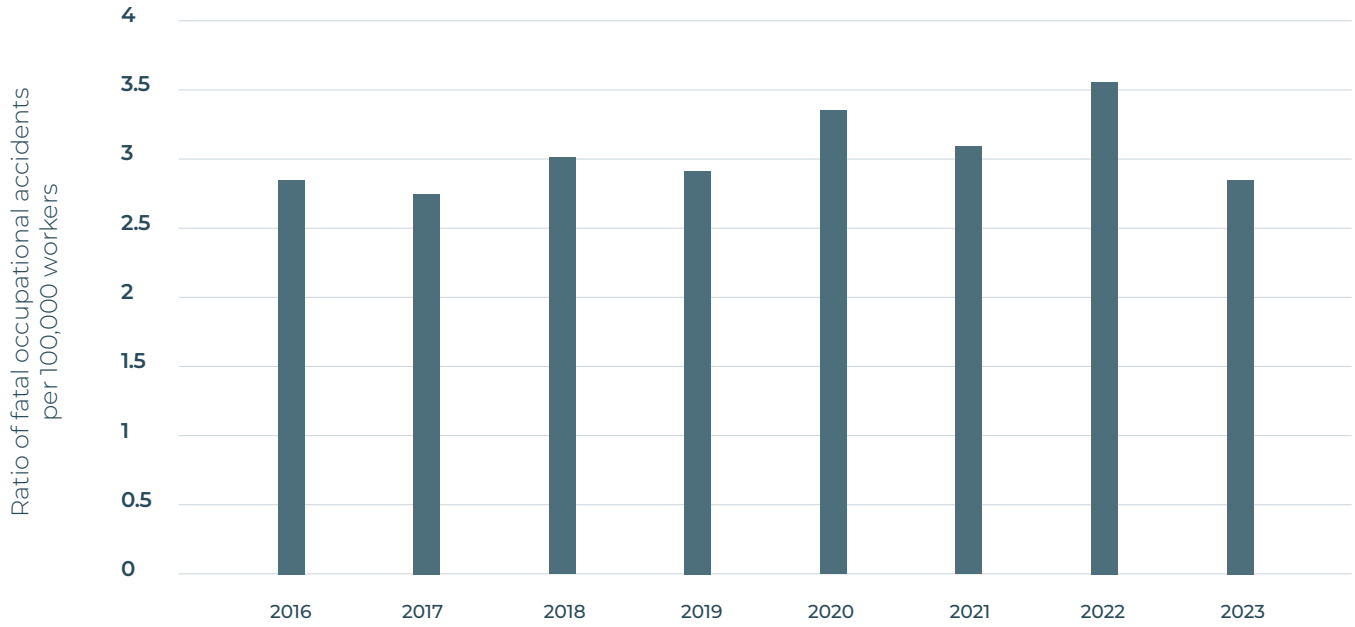
Source: Own elaboration based on data extracted from Eurostat.

Figure 4. **Incidence rate of occupational accidents per 100,000 workers in Spain, 2016-2023**



Source: Own elaboration based on data extracted from INSST.

Figure 5. **Incidence rate of fatal occupational accidents at the workplace for every** 100,000 workers in Spain, 2016-2023 **6**



Source: Own elaboration based on data extracted from INSST.

In terms of **sectoral impact,** the sector with the highest number of accidents during working hours resulting in sick leave is the **manufacturing industry,** with 95,273 cases, followed by construction, with 83,966. Regarding the most common types of injury in the case of non-fatal accidents, during 2023 (as well as in previous years) were dislocations, sprains and strains, followed by superficial wounds or injuries (see **Figure 6**).

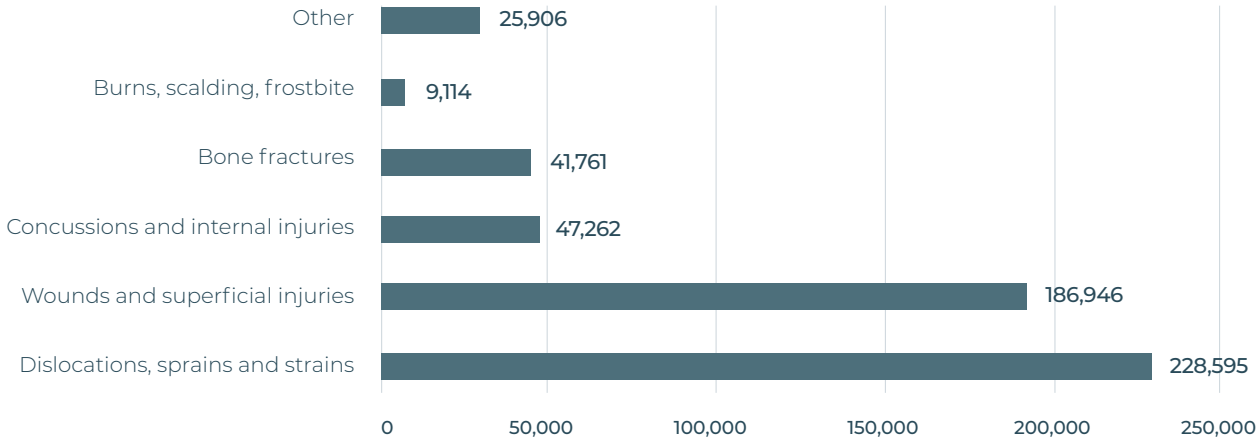
The persistence of high accident rates in sectors where physical factors and operational risks are more relevant underlines the importance of identifying **more effective prevention strategies to protect workers.**

In order to advance knowledge in this area, this study asks: **how do new demands for greater adaptability and flexibility in the labour market affect accident rates in this area; and what can organisations do to mitigate this impact?**

[6]Information extracted from annual reports developed by INSST, from 2016 to 2023.

To answer these questions, we have first conducted a quantitative analysis of a **sample of more than 65,000 establishments in themanufacturing sector in France**[7]**,** for which we have information on both their flexible employment management practices and their annual occupational accident rate for a period of 10 years. The advantage of using such an extensive database is that it allows trends to be identified for a variable - occupational accidents - that represents a rare event. Having established a statistical relationship between flexible employment management practices and the accident rate, we have collected qualitative information through interviews with OHS management experts from various companies in Spain, in order to better understand the causes of this relationship between the two phenomena and to identify management practices to reduce such risks.

Figure 6. **Occupational accidents at the workplace during the working day with sick leave, by type of injury, 2023**



Source: Own elaboration based on data extracted from INSST (2024).

[7]Since the data is collected in a systematic way, covering both the number of workplaces and the total number of workers in the industrial sector, we considered it appropriate to focus our quantitative study on information from this country. Moreover, its legislative framework in the field of Occupational Risk Prevention is comparable to that in force in Spain, which allows for greater coherence in the analysis.

2. Quantitative study

In relation to the quantitative research carried out, the methodology used, the description of the sample analysed and the results of our analysis of the relationship between different flexibility practices and the occupational accident rate are presented below.

2.1. METHODOLOGY AND DESCRIPTION OF THE SAMPLE

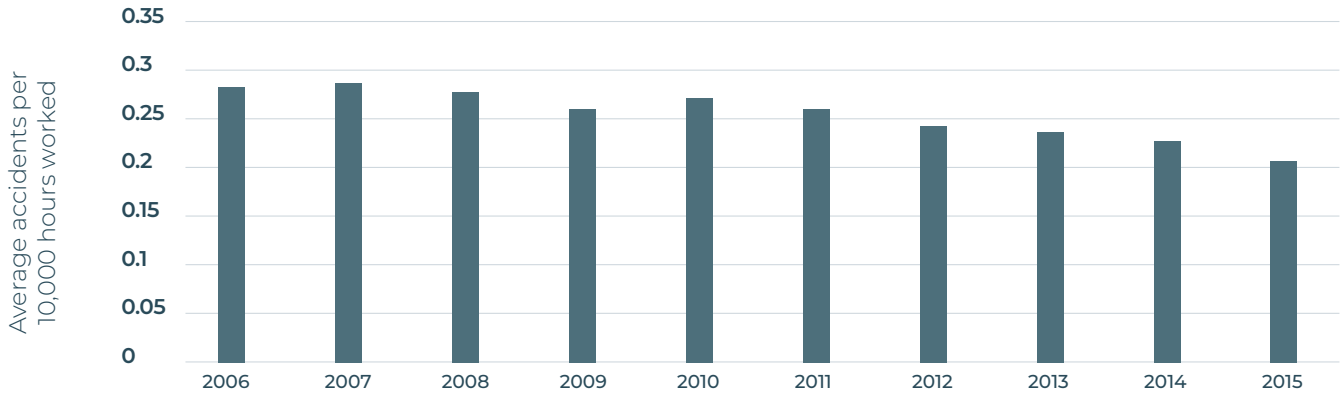
In the quantitative study, we examined the **relationship between the adoption of flexible work practices and occupational accidents in the manufacturing sector,** environment with particular relevance for examining safety due to the high prevalence of accidents. In particular, we have focused on examining the impact of hiring production line workers from the external market and of using temporary contracts for them in terms of job safety at the hiring firm.

Our study uses a unique database with access to information relating to **the entire population of workplaces in the manufacturing sector in France.** In general, occupational safety in this country, as in Spain, is highly regulated and establishes rights andprotectionmeasures that extend to all categories of workers.

The database created for the quantitative study comes from two main sources. First, we identified the workplaces and the companies that own them through the employer-employee matched data from the *annual social datadeclarations* (DADS). The DADS data includes information on the workers, the workplace and the enterprise for all workplaces with workers in France. This dataset allows for the identification of new hires and the use of temporary contracts for the whole period under review. Secondly, we obtained detailed information on occupational accidents from the *Conservatoire national des arts etmétiers* (CNAM), which included the identification of each workplace and the date of all accidents reported by employers and employees in the private sector, as well as comprehensive information on the type and severity of accidents.

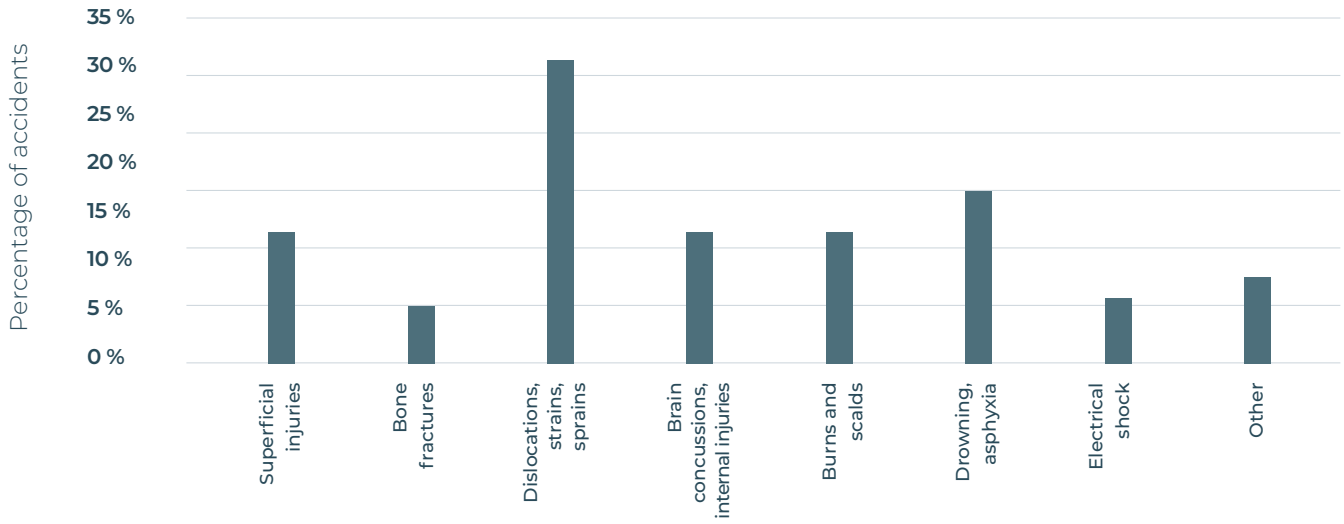
The final sample includes 340,814 workplace-level observations per year, corresponding to 69,662 manufacturing workplaces from 57,117 enterprises between 2006 and 2015. The study was limited to workplaces with at least five employees, excluding micro-workplaces, which may have less formalised management practices.

Figure 7. **Average annual number of occupational accidents during working hours per 10,000 hours worked at the workplaces surveyed, 2006-2015**



Source: Own elaboration.

Figure 8. **Percentage of accidents reported in the sample of companies according to their nature**



Source: Own elaboration.

Figure 7 shows the average annual number of occupational accidents occurring during the working day per 10 000 hours worked in the different workplaces studied during the period 2006-2015. Although this value has decreased over the years, it is still relevant.

In turn, the distribution of reported accidents according to their nature can be seen in **Figure 8**. The most frequent are dislocations, strains and sprains, which is in line with the general data in Spain, followed by drowning or suffocation and concussions or internal injuries.

2.2. DIFFERENCES BETWEEN ACCIDENTS ACCORDING TO FLEXIBILITY PRACTICES

In order to determine whether there are significant differences in the occupational accident rate between those workplaces that use the practices associated with operational flexibility and those that do not, we carried out a series of **comparisons of different means using Student's *t-tests*.**[8] The mean values analysed for each sub-sample are presented in **Figure 9.** Thus:

[8] Statistical test comparing the means of two groups (e.g. outsourced and non-outsourced workplaces) to determine whether observed differences are significant or due to chance. Statistically significant differences are considered statistically significant if the p-value is less than 0.05.

1. **Outsourced *versus* non-outsourced** [9] (see **Figure 9.a**). A significantly higher number of accidents is observed at workplaces with outsourcing compared to those without (t = -10.18; $p \leqslant 0.001$).

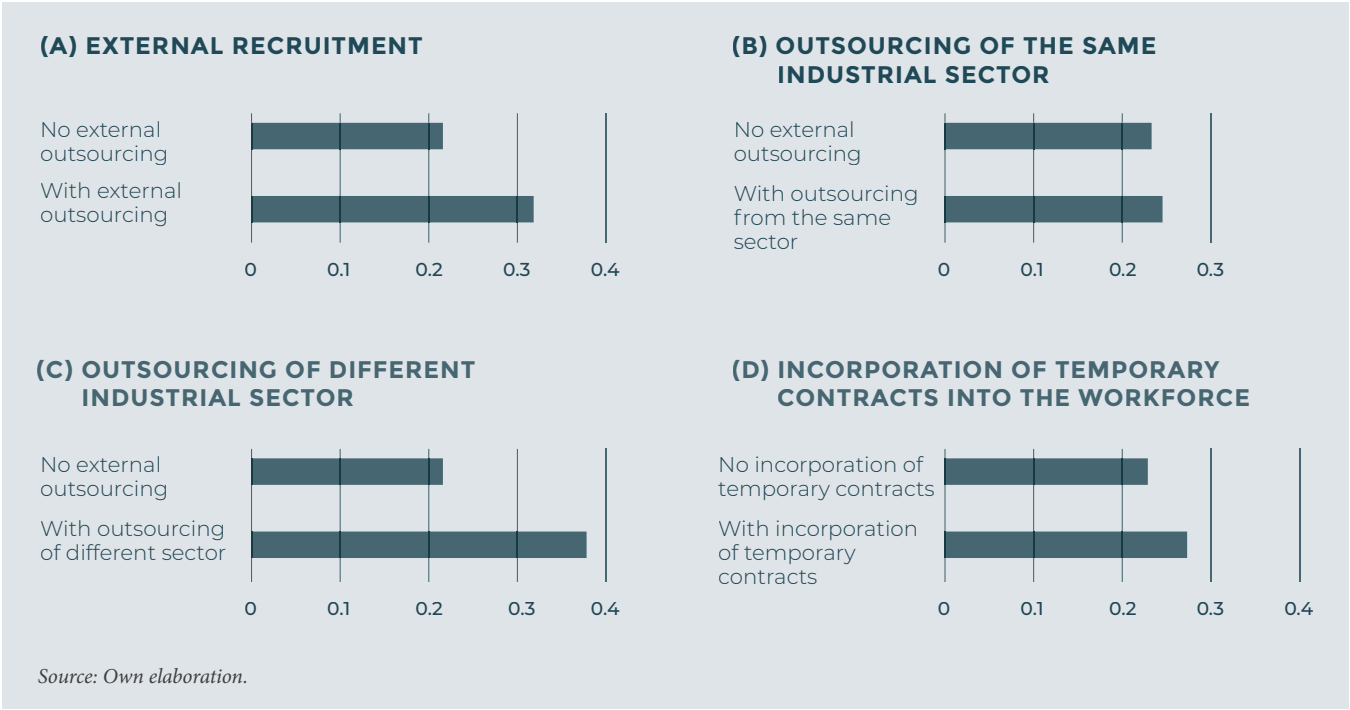
2. **Outsourcing from same industry sector *versus* no outsourcing** [10] (see **Figure 9.b**). The number of occupational accidents does not increase when external recruitment incorporates workers with previous experience in the same industrial sector (t = 0.95, p = 0.342).

3. **Outsourcing from different industry sectors *versus* no outsourcing** [11] (see **Figure 9.c**). The number of occupational accidents increases significantly when external recruitment incorporates employees whose work experience corresponds to another industrial sector (t = -10.69; $p \leqslant 0.001$).

4. **With *versus* without temporary contracts in the workforce** [12] (see **Figure 9.d**). The number of accidents is significantly higher at workplaces that add temporary contracts to the workforce compared to those that do not (t = -22.09; $p \leqslant 0.001$).

Our analysis of the quantitative data therefore suggests that **there is an impact of labour flexibility practices on the rate of occupational accidents** among the different workplaces in the production sector analysed. In particular, those who seem to follow a policy of adaptation through flexibility achieved through an external labour market, with a higher number of external recruitments and a greater use of temporary contracts, show a higher number of claims. In order to explore the reasons for these results in depth and the actions that can help companies to reduce workplace accidents, we have used qualitative data collection and analysis, the results of which are presented below.

Figure 9. **Annual differences in the number of accidents per 10,000 hours of work and per workplace, by use of flexible working practices, 2006-2015**



Source: Own elaboration.

[9] The outsourcing variable is a dichotomous variable that has the value of one if new workers joined the workforce during the year, and zero if not.

[10] The outsourcing variable from the same sector is a dichotomous variable that takes the value of one if workers from the same industry sector, defined according to the 4-digit North American Industry Classification System, were recruited, and zero otherwise.

[11] The outsourcing variable to a different sector is a dichotomous variable that takes the value of one if workers from a different industrial sector, defined according to the 4-digit classification of the North American Industry Classification System, were recruited, and zero otherwise.

[12] The variable, incorporation of temporary contracts into the workforce, is a dichotomous variable that takes the value of one if temporary contract workers were incorporated into the workforce during the year, and zero if not.

3. Qualitative study

In relation to the qualitative research carried out, the methodology used, the sample analysed and the results of the study are presented below.

3.1. METHODOLOGY AND DESCRIPTION OF THE SAMPLE

For the qualitative research, we carried out **semi-structured interviews with 18 OHS experts** (see **Table 1**) **from 13 medium-sized and large companies.** Many of them have international operations and an average workforce of 2,100 employees in Spain, with numbers ranging from 200 to 5,000 workers. These companies opere ate in various industrial sectors, including food, paper and cardboard, building materials, metallurgyand shipbuilding, among others. Some of them have a history of more than 100 years in our country, while the average age is around 60 years. All of them stand out for their safety culture and prevention projects.

The questions posed to the experts are based on academic literature and focus on the following aspects: behaviours considered safe or unsafe; strategies implemented in order to reduce the accident rate; risk factors arising from the current environment; and actions taken after an accident at work. The interviews, averaging 45 minutes in length, were recorded and later transcribed for analysis.

The *Grounded Theory* approach was used for the analyses, in accordance with the techniques proposed by Strauss and Corbin (1990). For more details on this methodology, see **Annex 1**.

Table 1. **Descriptive data of the people interviewed in the study**

Gender	•Men • Women	72 % 28 %
Job position of the interviewees	•Human resources Director •Health, Safety and Risk Manager	56 % 44 %
Years of experience	•Total •Current position	24.7 years (SD[13]: 4.4) 7.9 years (SD: 7.0)
Training masters level	·**Master's Degree** in HR. ·**Master** in ORP ·**MBA** ·**Master** in *Coaching* or Leadership	50 % 28 % 22 % 17 %
Training level Undergraduate/ graduate degree	•Engineering •Law, Economics or Business Administration •Industrial Relations or Industrial Relations •Psychology or Criminology	39 % 39 % 11 % 11 %

[13] The standard deviation (SD) is a measure of dispersion that indicates how much the values of a data set vary from their mean. The higher the SD, the greater the dispersion of the data.

3.2. RESULTS OF THE QUALITATIVE STUDY

Our rounds of data coding, taken together, lead us to a process model that describes how occupational risk prevention experts understand the negative impact that changes in the current environment can have on workplace safety, and the actions companies can take to mitigate that impact in the workplace. This model is shown in **Figure 10,** in which the blue boxes represent the three main dimensions identified from the interviews and the arrows represent the way in which these interact with each other, resulting in an effect on the company accident rates and/or incidence of workplace injuries (see **Figure 10**).

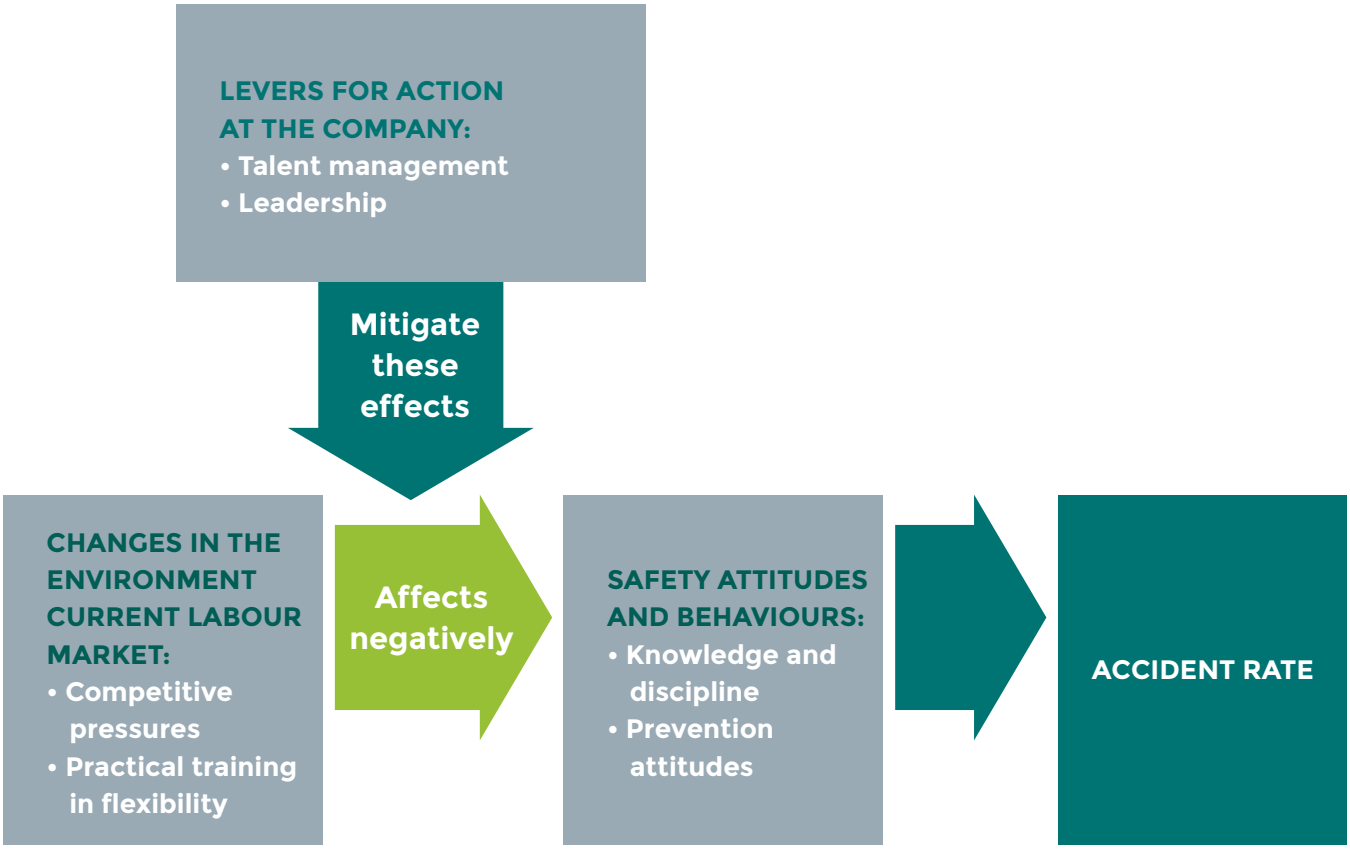
3.2.1. Safe attitudes and behaviours

The interviewees agree that, in terms of OHS, it is essential to identify and promote a set of safe attitudes and behaviours to ensure the physical integrity of workers. From the responses provided by the experts, we identified two broad categories of safe behaviours that participants consider to be key, which are set out below.

- **Knowledge and discipline**

  Almost all participants underlined that **thorough knowledge** and strict compliance with essential safety rules are vital to prevent accidents. These rules, known in some companies as *golden rules* or *life-saving rules*, form the basis

Figure 10. **Final theoretical model obtained from the coding of the interviews**



Source: Own elaboration.

for safe behaviour. This was explained by one of the participants in our study:

"*It is expected to follow the* golden rules *that each company chooses, such as the 10 safety commands ments in my current company, basic behaviours that I expect each and every one toadopt*".

Discipline regarding the observance of these rules is also a relevant aspect taken into account by the interviewees. Ensuring that established procedures are properly followed, as one of them referred to as

"not tolerating in any way whatsoever any deviation which could pose a significant risk to workers",

which minimises the risks associated with unforeseen events. This aspect is reinforced by a focus on self-criticism and personal commitment, which allows employees to reflect on their own role in prevention. Another intervener described it in the following terms:

"The most important behaviour is responsibility; basically, self-responsibility, because one day you might be more tired and not pay enough attention [...]. Sometimes, we workers become complacent and think that the company has to do everything, and we don't work on the concept of responsibility, I mean, what have you got to do with all of this?".

- **Preventive attitudes**

Beyond compliance, preventive attitudes stand out as an essential component of a safe environment. These include a questioning and communicative attitude, as well as a sense of commitment, both to oneself and to one's peers. One participant explained it this way:

"*We are working a lot on the engagement of workers so that they know how to identify the risks [...]; what we want is that, before undertaking a job, they do things not because they are forced to, but because they are able to do a risk assessment*".

On the other hand, **the idea of "looking out for one's partner" promotes collective safee ty and ensures that unsafe conditions are identified and reported by everyone.** As one interviewee noted,

"*A worker should be aware that when they observe an unsafe condition or a dangerous situation, they should promptly report it to their colleague and to their line manager in order to prevent and avoid an accident.*

Finally, **mindfulness and motivation are also essential.** Distraction is one of the main enemies of safety, which is why motivation and concentration are highlighted as the main mechanisms for employees to stay alert and comply with basic prevention instructions:

"*The secret to avoiding accidents at work is that your employees come to work with enthusiasm and feel at ease and committed to their job. If you have such workers on your staff, they are sure to follow procedures to the letter*".

3.2.2. Impact of changes in the working environment on safety

Participants in the study highlighted that changes in today's work environment are having a significant impact on workers' ability to adopt and maintain safe behaviours. Interviews corroborated the growing importance of flexible working practices as a means of adapting quickly to fluctuations in demand. However, these strategies, designed to improve productivity and reduce costs, create pressures that make it difficult for employees to internalise and enforce safety standards.

- **Competitive pressures**

The need to meet tight deadlines and achieve production quotas generates, according to our interviewees, an acceleration in the pace of work that often leads to the temptation to prioritise productivity over safety. Many pointed out that **this "haste" has become a recurrent enemy of safety standards,** as it leads to hasty and carelessexecution of tasks. One participant explained:

"*They come in and tell you that their product has to be ready in a month, so they are under pressure to meet the deadlines [...]; that pressure can put prevention on the back burner*".

Sometimes, however, these rushes are not only driven by external market demands, but are also partly self-imposed by the workers themselves or by production teams seeking to demonstrate higher performance or to reduce lead times. This was pointed out by one of the interviewees:

"*When it comes to performing the task, the pressures, the rush, the productivity [...] these are all risk factors that we have identified and that we want to work on*".

This phenomenon, in which the perception of urgency is intensified within the team itself, reinforces behaviours that compromise full attention and compliance with protocols, resulting in an increased risk of accidents.

- **Flexibility practices**

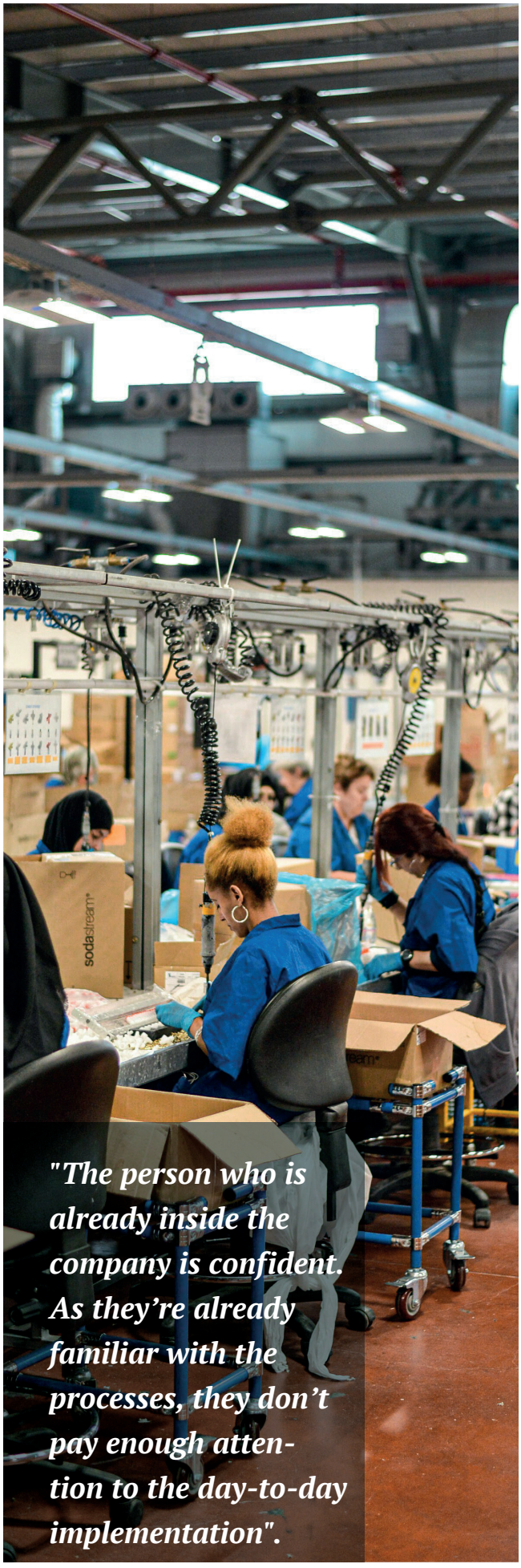
The participating experts mentioned various adaptability strategies used by companies, such as outsourcing through temporary employment agencies, external rotation through the incorporation of temporary employees and internal rotation to fill staffing needs or to promote multi-skilled profiles. While these policies may offer organisational advantages, they also create significant risks that affect occupational safety.

The use of subcontracted workers was identified as a source of risk due to the difficulties in ensuring that these employees are fully integrated into the contracting company's OHS culture. As one of the participants explained:

"*We are also very concerned about the prevention culture of the collaborating companies, because we know what we do here, [...] but there are many collaborating companies that do not have the same culture as we do in this area*".

In addition, the fact that prevention training is provided by the subcontractor and not directly by the employer may limit the control over the quality and scope of such training:

"*The levers you have to act on the subcontractor are not the same, because the training is not done directly, but through the subcontractor.*



"The person who is already inside the company is confident. As they're already familiar with the processes, they don't pay enough attention to the day-to-day implementation".

This disconnection can lead to differences in compliance with safety standards and increase the risk of accidents in the work environment.

The influx of new employees from other contexts, especially in key positions, was also identified as a major challenge. According to interviewees, these workers often lack the necessary levels of preventive commitment and knowledge of risk assessments specific to their new work environment. In this regard, one participant noted the following:

"*We have identified turnover as a risk, because people are being incorporated into key positions who are being given responsibility in the organisational chain without yet having the levels of prevention commitment*".

In addition, the lack of specific experience of new workers may result in errors or minor accidents:

"You can draw up work instructions [...] What's the problem? That the new one doesn't have that fine tuning. And what does that cause? Some minor accidents".

These observations underline the need to manage the on-boarding and adaptation process of employees with particular care in order to minimise risks.

Finally, **internal rotation is mentioned by interviewees as a talent management strategy widely used in companies to improve productivity, labour flexibility and employee motivation;** however, despite its advantages, they agree that it also presents risks in terms of job safety. According to participants, such changes can lead to overconfidence among employees, who, assuming that their previous experience in the organisation is sufficient, often overlook the specific training required for their new position. One of them pointed out:

"As the insider already knows the processes, he does not pay enough attention to the day-to-day execution and can lack this oversight".

Also, some organisations tend to take a more relaxed approach to transitioning employees into new roles, which can result in less preparedness and a higher risk of accidents:

"*Companies are usually much more relaxed in this respect when a person moves from one position to another. And accidents do happen, because in the end the worker is not used to it*".

This context reinforces the need to carefully manage internal rotation processes to ensure that all employees are adequately trained and fully adapted to the specific requirements of their new roles.[14]

3.2.3. Strategic business tools to mitigate workplace risks

Mitigating the risks associated with new market demands and ensuring the implementation of safe behaviours requires companies to implement **effective strategies based on a strong preventive culture.** It not only counteracts the negative effects of labour flexibility, such as turnover or subcontracting, but also promotes an environment where safety is a priority and the incidence of accidents at work is significantly reduced. In this respect, during the interviews, experts agreed that organisations have a crucial role to play in creating conditions conducive to both the safety and well-being of their employees. By implementing comprehensive plans and concrete actions, companies can address the challenges arising from the current market dynamics and ensure that their teams are empowered, committed and aligned with OHS values.

The strategies identified by interviewees were grouped into two main dimensions - talent management and leadership - which are detailed below.

- **Talent management**

  Talent management was presented as one of the main levers for action to mitigate the risks associated with flexible working and to ensure a safe environment. Within this dimension we include practices such as the process of socialisation and integration of employees, continuous training and awareness raising, effective internal communication and reinforcement of good practices. Each of these strategies seeks to ensure that employees are aligned with the company's preventive culture and have the necessary tools to adopt safe behaviours.

[14] For a paper exploring the relationship between internal mobility and workplace accidents see Bonet and De Stefano (2025).

Socialisation and integration are essential to ensure that all workers, regardless of their origin (direct or subcontracted), are aligned with the organisation's safety policies. In this respect, one of the interviewees explained how his company works in this area:

"*We are carrying out this integration with our partner companies in workshops where we talk about the most important safety issues. We instil our management system in them. [...] In the end, for us, everyone who enters the workplace is equal, regardless of whether they come from partner companies*".

This approach not only helps to standardise preventive practices, but also reinforces a sense of ownership among all employees, which is vital to foster a collective commitment to safety.

At the same time, **training in risk prevention or for safety procedures is another fundamental pillar** pointed out by the participating experts. While initial training is essential, they recognise that it is not enough to ensure safe behaviour in the long term:

"*Complying with standards or regulations is necessary, but not sufficient, especially in industrial and production environments. In addition to initial training, continuous training is required, either because you have new machinery or new processes and have to adapt the safety protocols, or because, even without having changed the protocols, refresher training is needed*".

Many of the interviewees highlighted the existence of ambitious continuous training programmes, with hours specifically dedicated to updating and reinforcing knowledge, some of which even reach numbers as high as 13,000 or 14,000 hours per year of OHS training for all staff.

Internal communication appears as another crucial tool to ensure that safety policies are understood and applied by all workers. On the one hand, several speakers pointed out that information overload can be a challenge:

"*The worker is saturated with information, so sometimes we must not be satisfied with simply sending an email or saying that it is in the information system. We need to make sure at a cultural level, in every area committee, that employees know and understand all these policies*".

On the other hand, it is essential to implement multiple communication channels: visual, through screens in the workplace; written, in the different regulations that are sent both by e-mail and on physical support in the workplace; and oral, through regular meetings. In this way, companies can increase their confidence that key messages reach their target audiences clearly and effectively.

Finally, interviewees stressed the **importance of reinforcing good practices and avoiding the use of punishment as a corrective tool.** To this end, employees should be motivated to internalise safety rules. Some companies have implemented recognition programmes to encourage safe behaviour. This was explained by one of the participants:

"*We run an annual competition with a prize to recognise good practice. It is not just one initiative, it is more of a package of things; different fronts are valued and people recognise the partner*".

Such initiatives foster a positive safety culture, where employees are recognised for their contribution to collective well-being. Moreover, this approach fosters an environment where solutions are sought rather than blame:

"*We're not going to punish anyone who badly pointed out [the existence of a risk], what we're going to see is how we deal with it or how we organise ourselves in order to point out things better together; [...] we're not looking for culprits, but for a solution for improvement*".

- ## Leadership

Effective leadership, both at the level of first-line managers/team leaders and senior management, was highlighted as a vital factor in fostering a strong and sustainable safety culture. Different actions developed from this perspective contribute to creating an environment in which it is perceived as a core organisational value, thereby increasing employee trust and commitment.


"The key is that there is a genuine interest, even at the highest level of the organisation, in understanding what happened, why it happened.

On the one hand, it is important to bear in mind that **leaders and middle management are seen as the main points of reference for establishing a safety culture in the organisation.** One interviewee summed up this idea with this sentence:

"Your leaders and your managers have to be the best model of that culture. [As they say in English, walk the walk".

The importance of leading by example is reflected in the behavioural dynamics observed among workers. If leaders break the rules, even in small details, this can discourage employees from following them. A clear example highlighting this perspective is the following:

"*If in one of our factories in the industrial complex, this or thatmanagerdoes not lead by example, does not put on a mask, does not put on a helmet. Or when you move around inside a factory, you cross the lines [...]. I strictly comply with the safety procedures and, from the third or fourth month onwards, when I see my supervisor taking off his mask to talk a bit, I might take it off too*".

Interviewees also agreed that visible and tangible involvement of senior management is crucial to reinforce safety as an organisational priority:

"*The key is to show a genuine interest, even at the highest level of the organisation, in understanding what happened, why it happened and what we are going to do to make sure it never happens again*".

This interest should go beyond formal speeches and include regular visits to workplaces to understand first-hand the challenges faced by employees:

"It*is not enough to say from my office how things should be done in the factory, you have to be there [...] and be seen with a certain frequency, that is to say, presence is important, which is related to leading by example*".

Effective leadership also involves demonstrating that safety is non-negotiable and must take precedence over any productivity-related pressures. As one interviewee explained:

"*Normally, when you don't have time, people wrongly sacrifice quality and safety to get things done faster, and we can prove with numbers that this is wrong. I'm tired of saying that it's quicker, more efficient and safer to get it right once than to get it wrong once and have to do it a second time. The problem we have in terms of safety is that sometimes there is no second time*". This perspective is complemented by an effort to communicate to employees that they should not make hasty decisions that compromise safety. Another participant described it this way: "*We focus on reinforcing that no one is asking them to rush, no one is asking them to put someone in an untrained position, no one is asking them to disable a safety element that is failing. We ask the opposite*".

Finally, interviewees highlighted the importance of transparency as part of a leadership committed to safety. Withholding information about incidents can generate mistrust and hinder organisational learning. Some companies have implemented awareness-raising campaigns based on real experiences to promote reflection and continuous improvement. An example given by one participant was as follows: "The colleague of the deceased was travelling around Spain to resolve doubts, to talk to his colleagues, to tell them how he felt about what he had been through, his day-to-day life. It was a very good awareness campaign.

4. Conclusions

Flexibility in the work environment, although valued by organisations as a key tool for adapting to market demands, comes at a **hidden cost in terms of job safety.** Strategies such as outsourcing, external rotation and diversification of contractual modalities tend to dilute employees' responsibilities towards their role and their team, and generate dynamics that increase safety risks. In addition, lack of experience and insufficient training of certain groups of workers may result in less knowledge about safe behaviour in the company.

Our study shows that employment practices focused on achieving flexibility can lead to decreased group cohesion, reduced adherence to safety norms and a reduced sense of belonging to the work community, which are essential factors in ensuring safe work behaviours. Moreover, in an environment marked by competitive pressures and high productivity demands, workers tend to prioritise results over safe practices, which increases the likelihood of accidents.

A surprising finding identified in the interviews was that **both external and internal rotation can increase occupational risks.** Interviewees stress that overconfidence about the transferability of knowledge on the part of both the company and the employee can lead to even greater job risks in the case of internal turnover. Due to the increase in the latter, whereby companies aim to create multi-skilled profiles and develop new skills, they may be facing new risks. The results obtained therefore suggest the importance of reinforcing continuous training also in the field of occupational risks.

Furthermore, in our research we have found that **talent management emerges as a key strategic tool to mitigate these risks.** The implementation of a comprehensive preventive culture, based on the socialisation and integration of employees through different tools and taking into account the time needed for the learning curve, together with continuous training on OHS, effective internal communication and recognition policies that take into account safe behaviours, are key to minimising the risk of accidents. The study shows that these practices not only increase knowledge about which behaviours can lead to occupational hazards, but can also foster an organisational climate of psychological safety that encourages proactive behaviours that promote safety and discourage dangerous practices.

Finally, **effective leadership plays a crucial role** in consolidating this preventive culture. Managers and leaders must act as role models and actively demonstrate a genuine concern for workers' health that prioritises safety over productivity goals. Their effective presence and credibility are essential to building an atmosphere of trust, where employees perceive safety as an organisational priority and not just a regulatory requirement.

In conclusion, companies face the challenge of balancing operational flexibility with job safety. However, **a proactive strategy that combines talent management with committed leadership can transform these challenges into opportunities to build safer and more resilient organisations.**

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HERO

NAVANTIA

RELAX MATTRESSES

SAICA

SCHINDLER

WITZENMANN

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Annexes

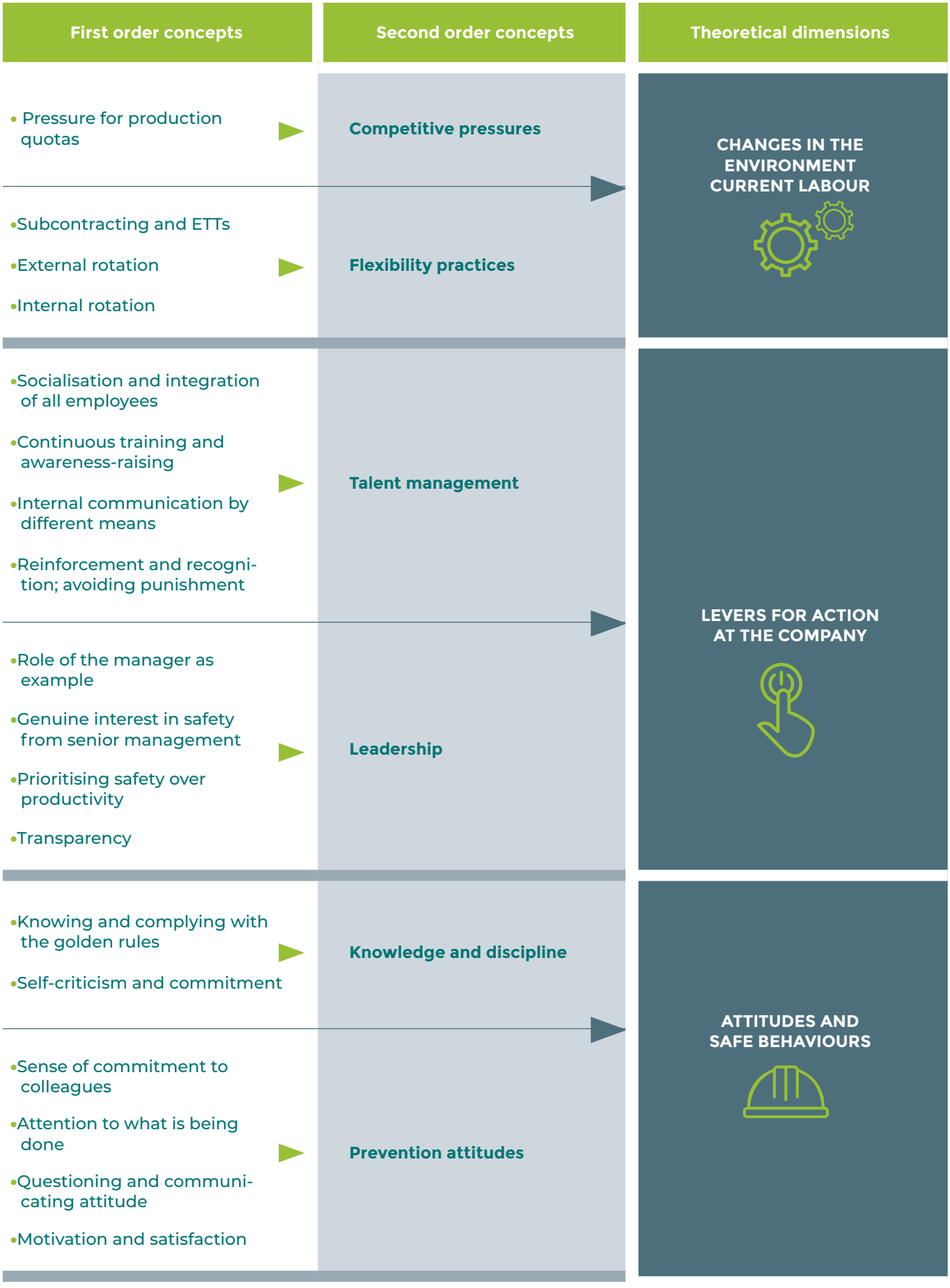
ANNEX 1. METHODOLOGY FOR QUALITATIVE ANALYSIS

The qualitative analyses were carried out using the *Grounded Theory* approach , according to the techniques proposed by Strauss and Corbin (1990). This perspective is inductive and is based on the generation of concepts from the data collected, using a structured process that includes the following main steps:

1. **Open coding.** We identified first-order concepts from the answers given during the interviews by the OHS experts.
2. **Axial coding.** We grouped the initial concepts into second-order concepts by constant comparison between the data and in the light of the scientific literature on the subject.
3. **Aggregation of theoretical dimensions.** The second-order concepts were integrated into three theoretical dimensions aggregated on the basis of the thematic questions and the three key concepts we worked on throughout the research, including the quantitative section.

Moreover, the independent development of this process by the two researchers who carried out this study ensured the reliability and validity of the developed categories, with 100% agreement for the three theoretical dimensions. The final result of the clustering process can be seen in **Figure A1.**

Figure A1. **Process of categorising and grouping respondents' answers into first order concepts, second order concepts and theoretical dimensions.**



Source: Own elaboration.

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