

FRANCE: THE TMS PROS PROGRAMME AND OTHER INITIATIVES TO TACKLE MSDs

1 Summary

Similarly to other European countries, the prevalence of musculoskeletal disorders (MSDs) in France is very high and MSDs are recognised as one of the leading causes of occupational disease. The national occupational safety and health (OSH) strategy, which has been laid out over nearly 20 years through a series of work health plans (*Plans santé au travail* — PSTs), has identified the tackling of MSDs as a priority in three consecutive plans. During the last decade the problem of MSDs has been addressed in France through a series of initiatives by various stakeholders taking a variety of different approaches, including through research, awareness raising, support schemes, sectoral plans, guidance and other materials.

In 2014, the TMS (*Troubles musculo-squelettiques*) Pros programme was set up by the Health Insurance — Occupational Risks (*Assurance maladie — risques professionnels*) section of the French National Health Insurance Fund for Salaried Workers (*Caisse nationale de l'assurance maladie des travailleurs salariés* — CNAMTS) with the collaboration of the French National Research and Safety Institute for the Prevention of Occupational Accidents and Diseases (*Institut national de recherche et de sécurité* — INRS). The programme offers businesses support to prevent work-related MSDs. TMS Pros targets enterprises affected by a high rate of occupational MSDs. Enterprises registered in the TMS Pros programme can benefit from assistance for MSDs prevention tailored to their needs, provided by the regional offices Pension Insurance and Occupational Health Fund (*Caisse assurance retraite et santé au travail* — CARSAT), and Regional Health Insurance Fund (*Caisse régionale d'assurance maladie* — CRAM). Since 2016, the initiative has also provided financial support to small and medium-sized enterprises (SMEs). The first phase of the TMS Pros programme targeted 8,000 companies. The objectives for the second phase anticipate an increase in the percentage of companies that will adhere to the TMS Pros scheme and set up a plan of action from 20 % in 2019 to 80 % by 2022.

To improve the epidemiological surveillance of occupational risks in France, the CONSTANCES 'general purpose' population-based epidemiological cohort was launched in 2012, aimed at contributing to the development of epidemiological research and to provide public health information. It is designed as a research infrastructure to support the public health objectives of the French National Health Insurance Fund for Salaried Workers (CNAMTS) and of the national government, consisting of the collection of highly diverse data from multiple sources based on a representative sample. The data also cover the epidemiological surveillance of occupational hazards. Previously, in 2010, the COSET programme (*Cohortes pour la surveillance épidémiologique en lien avec le travail*, Cohorts for epidemiological monitoring of work-related health problems), a system for monitoring work-related health problems, was set up with the aim of better understanding the links between occupational factors and the occurrence of health problems. COSET monitors developments in the health and careers of workers from two social security platforms, the insurance scheme for the agricultural sector (*Mutualité sociale agricole* - MSA), and the insurance scheme for self-employed or independent workers (*Régime social des indépendants* - RSI). The data from these cohorts provide a better understanding of causes of and risk factors for different health outcomes, including MSDs, and a strong evidence base for policy decisions. For the active members of the general scheme CNAMTS, the COSET programme relies on the data collected from the CONSTANCES cohort.

The sector-specific Organisation for the Prevention of Occupational Hazards in the Construction Industry (*L'Organisme professionnel de prévention du bâtiment et des travaux publics* — OPPBTP) provides guidance and assistance on the prevention of occupational risks in general in the construction sector through a network of 200 prevention counsellors within its regional structure. The aim is to reduce accidents and occupational diseases related to physical activity by involving employees in the process of developing and implementing prevention measures.

2 National background

2.1 Relevant statistics and trends

According to Eurostat, data from the Labour Force Survey (EU LFS) ad hoc modules show that, in the five years from 2007 to 2013, the percentage of workers in France reporting some form MSD rose from 47.3 % to 57.7 %. This is compared with the trend across the EU overall, which showed an increase from 54.2 % to 60.1 % in the same period. Nevertheless, national data published by the Health Insurance — Occupational Risks section on occupational accidents and diseases show a decreasing trend for occupational diseases, including MSDs, since 2012. The trend continued in 2017, although the decline in occupational diseases was not as significant as in previous years: -0.5 % between 2016 and 2017 compared with -4.3 % between 2015 and 2016. MSDs show a similar decline (-0.4 % in 2017 compared with -4.1 % in 2016). In contrast, there has been a 35 % increase in mental health problems of occupational origin, with 806 recognised cases in 2017.

Figure 1 shows the annual number of recognised MSDs affecting the upper and lower limbs ⁽¹⁾. This includes shoulder, elbow and hand/wrist disorders (rotator cuff syndrome, lateral and medial epicondylitis, ulnar nerve entrapment at the elbow, hygroma at the elbow, carpal tunnel syndrome, wrist and hand tendinitis, Guyon's syndrome) but also a very small number of disorders affecting the lower limbs (knee and ankle/foot, such as Achillean tendinopathy, knee hygroma). The graph shows a steadily increasing trend from 1993 to 2011; from 2012 a slight decline starts and in 2018 the number is back to levels recorded in 2010.

Figure 2 shows a graphical breakdown of MSDs for the period 2011-2018. The data include wrist and hand problems caused by vibration (hand-arm vibration syndrome), with two further classifications covering back disorders (back problems attributable to whole-body vibration; and back problems specifically associated with the manual handling of heavy loads) and knee meniscal damages linked to efforts or manual handling, usually when kneeling and squatting. The figure clearly shows that lower back pain linked with manual handling alongside with lower back pain linked to whole-body vibrations predominate while occupational diseases linked to hand and arm vibration and lower limbs diseases are a smaller proportion of the total.

These statistics are available for the private sector only ⁽²⁾, while there are no reliable data for the public sector. The agricultural sector has specific data not reported here (source: MSA, *Mutualité sociale agricole*).

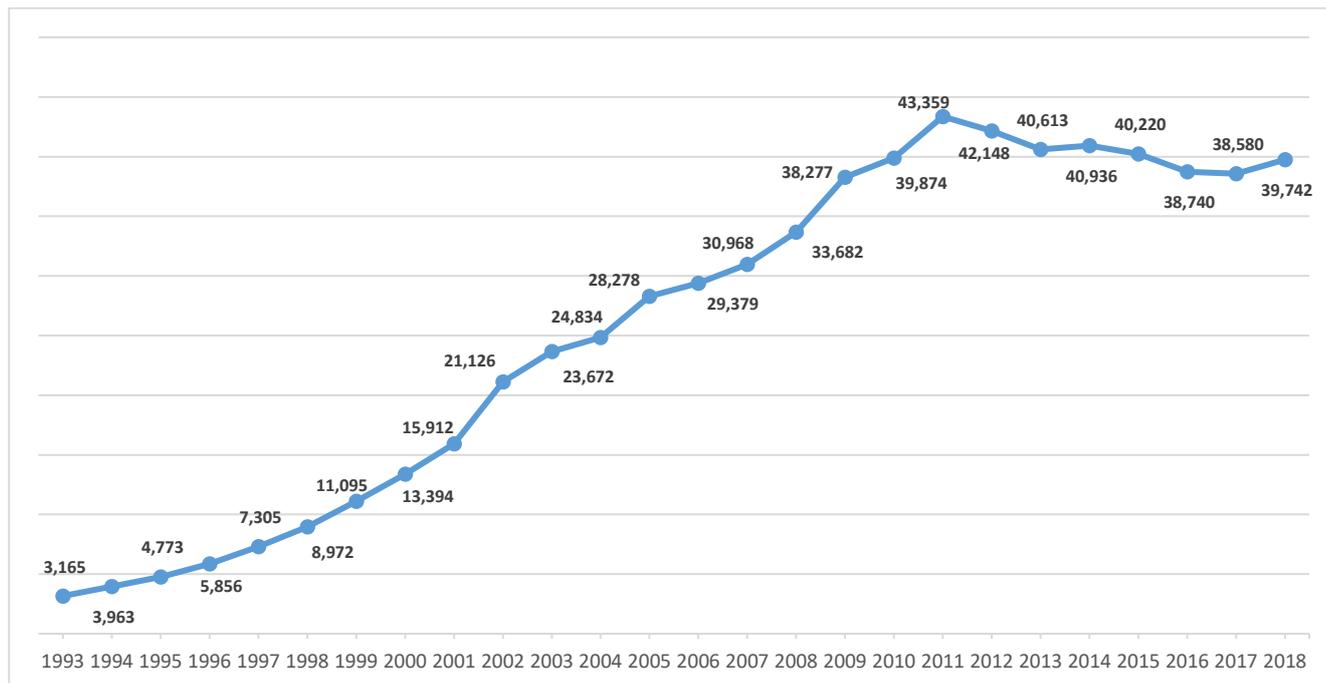
One of the potential problems in using these statistics of recognised diseases is that the classifications are subject to change, with new diseases being added or the definitions of existing diseases being modified.

According to DARES (2016), in 2012, four out of five occupational diseases were due to some form of MSD, giving some idea of the scale of the MSD problem in relation to other occupational diseases.

⁽¹⁾ <http://www.inrs.fr/publications/bdd/mp/tableau.html?refINRS=RG%2057> (accessed November 2019).

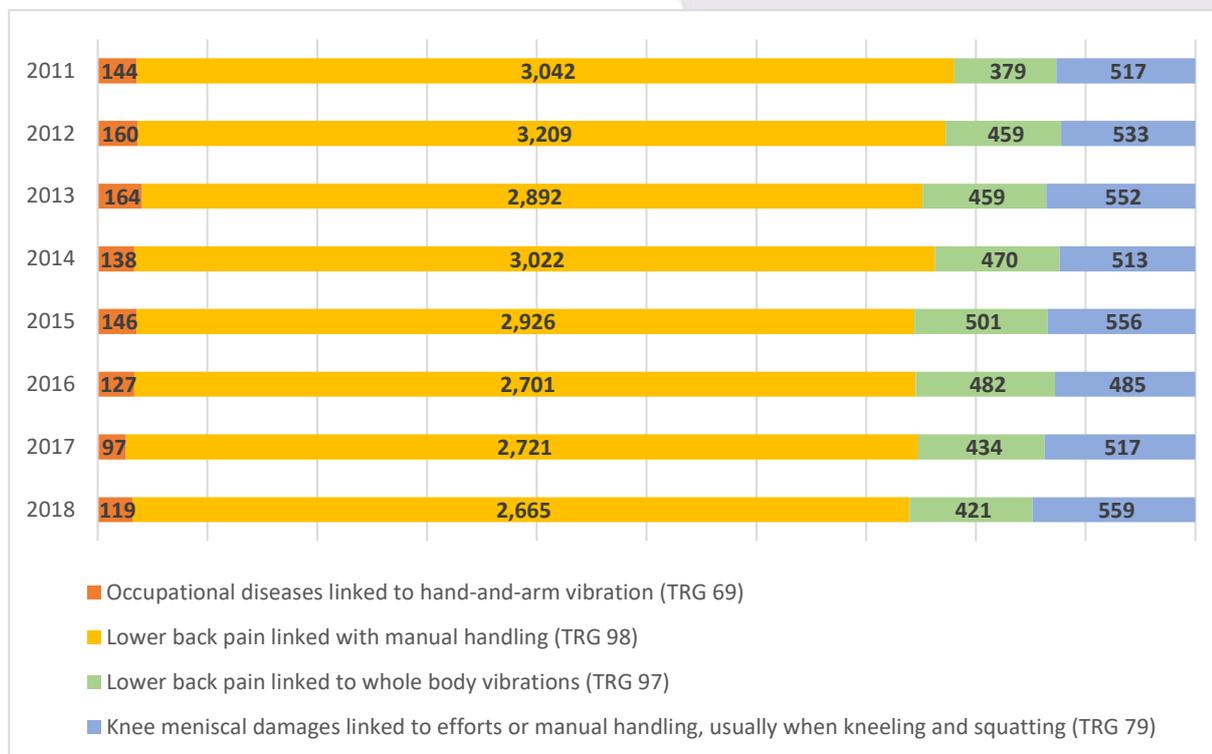
⁽²⁾ <http://www.risquesprofessionnels.ameli.fr/statistiques-et-analyse/sinistralite-atmp/dossier/nos-statistiques-sur-les-maladies-professionnelles-par-ctn.html> (accessed January 2020).

Figure 1: Trend in claims of occupational MSD of the upper and lower limbs – TRG 57. Years 1993-2018



Source: CNAM (Caisse nationale de l'assurance maladie)

Figure 2: Breakdown of claims for recognised upper and lower limb occupational diseases. Years 2011-2018



Source: CNAM (Caisse nationale de l'assurance maladie)

According to the TMSPros website ⁽³⁾, in 2015, MSDs accounted for more than 87 % of occupational illnesses resulting in lost work or financial reparations.

A Eurogip report compared 10 countries (France, Germany, Austria, Finland, Belgium, Spain, Italy, Sweden, Denmark, Switzerland) on the basis of their rate of recognition of MSDs as occupational diseases (Eurogip, 2016). France was at the top of the ranking (ratio of 322 per 100,000 insured workers), with the maximum level of recognition of MSDs as occupational diseases by health insurance funds (Eurogip, 2016). However, the report commented that differences in how data were collected, and other aspects, such as variations in the range of diseases included by the countries studied and criteria for recognition, made comparisons very difficult.

Although data for MSDs show a small decrease in incidence from more recent years – excluding 2018 –, a study suggest that these clinically diagnosed MSDs have a significantly higher prevalence than the level of workers' compensation, which in practice suggests that the information derived from compensation claims underestimates the incidence rates of the disorders (Ha *et al.*, 2009). Although this specific study is more than 10 years old, there is no fresher evidence to suggest that the situation has changed. For example, experts have pointed out that non-specific low back pain remains the most common cause of back problems, affecting more workers than recognised back disorders. There is evidence that MSDs in France are under-reported (Rivière *et al.*, 2009) and thus the real burden of the problem is not yet fully acknowledged. It is suggested that this arises as a consequence of the reporting scheme as, if a worker is aware that their disorder is not one that is officially recognised, there is little motivation or incentive to report it.

2.2 Legislation

National legislation implementing the provisions of the Manual Handling Directive ⁽⁴⁾ goes beyond the provisions of the directive in relation to the weights that can be handled. Article R4541-9 of the Labour Code quantifies the conditions applicable to the manual handling of a load by a worker. It states that, when the use of manual handling is unavoidable and mechanical equipment cannot be used, a (male) worker may be allowed to handle loads greater than 55 kg only if he has been authorised to do so by an occupational physician. Even with such authorisation, these loads cannot exceed 105 kg. Women are not allowed to handle loads greater than 25 kg or to carry loads greater than 40 kg using a wheelbarrow (wheelbarrow weight included). Pregnant women are further protected, with Article D4152-12 of the Labour Code stating that pregnant women cannot be asked to use a two-wheeled trolley (hand truck). Finally, Article D4153-39 of the Labour Code restricts the maximum loads that can be handled by young workers (aged less than 18 years).

The national implementation of the Display Screen Equipment (DSE) Directive ⁽⁵⁾ contains a minor change in that 'typewriters with windows' are not excluded from the national legislation, although they are excluded in the EU directive.

There is no specific legislation on psychosocial risks; they are covered under the general safety and health obligations of employers laid down by the Labour Code (and the courts increasingly recognise the management of psychosocial risks as part of an employer's duties). However, specific legislation covers the issue of harassment (covering psychological as well as physical and sexual harassment).

⁽³⁾ <https://tmspros.fr/TMSPROS/la-demarche/les-tms-de-quoi-parle-t-on>

⁽⁴⁾ Council Directive 90/269/EC on the minimum health and safety requirements for the manual handling of loads where there is a risk particularly of back injury to workers (Manual Handling Directive).

⁽⁵⁾ Council Directive 90/270/EEC on the minimum safety and health requirements for work with display screen equipment (DSE Directive).

Although the provisions of the EU Framework Directive⁽⁶⁾ were implemented into French national legislation in 1991 (Act No 91-1414 of 31 December 1991) in legislation that made the necessary amendments to the Labour Code and the Public Health Code, specific provisions prior to this already covered some of the requirements of this directive. For example, the 'company file' (*'fiche d'entreprise'*) is a document that was enshrined in specific French occupational law (*code du travail*, l'article D4624-37) in May 1989. According to this law, all enterprises and organisations in France are obliged to check the risks to the safety and health of all of their workers and to record these through the company file. Information about how each risk is addressed is recorded in a second document, the 'single document' (*'document unique'*), which provides a summary of the results of the occupational safety and health assessment and how these risks have been addressed and prevented. These two documents can therefore be seen as reflecting the requirement under the Framework Directive for employers to carry out a risk assessment, as well as to take steps to address (to remove or reduce) the risks identified.

2.3 National occupational safety and health strategy and tackling MSDs

In France, the Ministry of Labour, Employment, Professional Training and Social Dialogue (*Ministère du travail, de l'emploi, de la formation professionnelle et du dialogue social*) has the main responsibility for work and labour. The Ministry, jointly with the Ministry of Solidarity and Health, is responsible for a variety of actions including the preparation and implementation of the rules concerning working conditions and the rights of employees and the preparation and implementation of the rules governing the schemes and management of social security organisations in the field of industrial accidents and occupational diseases.

The national strategy adopted has been laid out over nearly 20 years through a series of 'health at work plans' (*Plans santé au travail* — PSTs). The objective of the first PST (PST 1, 2005-2009) was 'to initiate a new dynamic in order to sustainably improve the prevention of occupational risks. Its goal was to reduce these risks, sources of human tragedy and economic handicaps, and to encourage the spread of a true culture of prevention in companies' (7). It is interesting to note that the challenges in interpreting national statistics on occupational diseases were acknowledged within this PST but it was recognised that MSDs present a growing problem. The PST included reference to the general principles for the prevention of occupational risks, as laid down in the Framework Directive. Among its quantifiable objectives was a reduction of 20 % in the number of declared (recognised) MSDs by 2009. It enabled the establishment of a national epidemiological surveillance programme for MSDs and the completion of an awareness campaign on the prevention of MSDs in enterprises over a three-year period.

The preamble to the second PST noted that the number of occupational disease cases had continued to rise. PST 2 was prepared in the context of the EU strategy current at that time (2007-2012). Among its objectives was the development of actions to reduce occupational risks, including, in particular, MSD risks (and psychosocial risks). Another objective provided for the strengthening of support for companies, in particular smaller companies (employing fewer than 50 people). MSDs remained an action priority. The text notes that the level of recognised occupational MSDs had grown by about 18 % a year over the preceding 10 years. It also notes the multifactorial causation of many MSDs, including biomechanical, organisational and psychosocial factors. It sought to encourage the development of prevention plans (including the incorporation of quantified indicators to facilitate monitoring of the impact of the preventive measures adopted). Other features of note include that the prevention approach was expected to be a participatory approach involving a variety of contributors.

In 2016, the French Ministry of Labour launched the third PST relating to health at work (PST 3, 2016-2020). This plan again covers four years of planned actions and is based on three strands with various objectives.

(6) Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work (Framework Directive).

(7) <https://travail-emploi.gouv.fr/sante-au-travail/plans-gouvernementaux-sante-au-travail/article/plans-de-sante-au-travail-pst>

The first addresses prevention and covers subjects such as the culture of prevention, risks and their prioritising. The PST notes the need to prioritise primary prevention and to develop a prevention culture, perhaps suggesting that the aim of PST 1 to promote the spread of a culture of prevention had yet to yield results. The second relates to work quality and inter-relationships between public and occupational health. The third reflects that these objectives should be implemented under a system of social dialogue and simplification. Although PST 3 aims to cover as many occupational health issues as possible, it has a special focus on MSDs, which it identifies as the leading cause of occupational disease in France. Action 1.6 provides for the evaluation and dissemination of approaches and tools developed for the prevention of MSDs. It includes the prioritisation of preventive measures for MSDs (with a particular focus on the agricultural sector).

An additional element of PST 3 of relevance is the proposal to pilot a method for assessing the effectiveness of actions taken.

3 Epidemiological monitoring: COSET and CONSTANCES

One of the challenges facing policy development and implementation in the area of public health and OSH is the absence of evidence and suitably detailed and comprehensive data on the prevalence of, causes of and risk factors for different health outcomes and the factors that cause them, which are necessary to make informed decisions about appropriate avenues for intervention.

To improve the epidemiological surveillance of occupational risks in France, in 2010 a system for monitoring work-related health problems was set up: the COSET programme. This is a major national-level longitudinal research programme aimed at monitoring the health of the economically active population in France. The COSET programme monitors developments in the health and careers of workers from two social security platforms, the MSA, the insurance scheme for the agricultural sector (COSET-MSA cohort), and *Régime social des indépendants* (RSI), the insurance scheme for self-employed or independent workers (COSET-Independents). For workers affiliated to the general scheme (CNAMTS), the COSET programme will rely on the data collected from the CONSTANCES cohort. As the first large-scale national-level programme for monitoring people's health at work in France, the COSET programme aims to study the whole of the economically active population, regardless of sector, age or employment status. It will also continue to monitor participants' health after retirement to measure long-term health effects.

The objective of the COSET programme is to monitor the health of the economically active population to provide a better understanding of the links between occupational exposures and work-related diseases. The programme will help to identify those occupations and working conditions that pose a risk to the health of workers and provide recommendations for the prevention of disease, including MSDs.

The CONSTANCES 'general purpose' population-based epidemiological cohort was launched in 2012, with the aim of contributing to the development of epidemiological research and providing public health information. It is designed as a research infrastructure to support the public health objectives of the CNAMTS and of the national government, and consists of the collection of highly diverse data from multiple sources based on a representative sample. The data also cover the epidemiological surveillance of occupational hazards. The CONSTANCES cohort is made up of a sample of 200,000 adults aged 18-69 years at the time of inclusion, representative of the general French adult population affiliated to the General Health Insurance Fund (about 85 % of the general population). It is very broad in its scope, encompassing highly diverse data from multiple sources, covering a broad range of health conditions and health determinants, including a particular focus on multifaceted aspects of working conditions and occupational exposures. It serves as both a public health tool and an epidemiological surveillance tool, as well as providing a unique epidemiological research tool. It is accessible to researchers exploring a wide variety of health issues, including work-related health problems. CONSTANCES has received French government funding for an eight-year period (Investments for the Future programme).

A close collaboration has been established between CONSTANCES and the COSET programme, aimed at developing a surveillance tool for the whole working population.

The COSET and CONSTANCES cohorts will provide a better understanding of causes of and risk factors for different health outcomes, including MSDs, and a strong evidence base for policy decisions. They will also contribute, among other things, to a better understanding of the short-term and long-term effects of biomechanical and psychosocial factors on MSDs. Current projects of relevance to MSDs include 'Arduous working conditions and aging' and 'Job-exposure matrix for biomechanical factors'.

The data from these cohorts will provide a better understanding of the causes of and risk factors for different health outcomes, including MSDs, and a strong evidence base for policy decisions.

4 TMS Pros, a programme to tackle MSDs

The TMS Pros programme, a national-level prevention programme to prevent MSDs, was launched in 2014.

4.1 Aims and objectives

The aim of the programme is to prevent work-related MSDs. It offers businesses support for the development of an action plan and putting in place effective MSD prevention measures.

The current objectives anticipate an increase in the percentage of companies that will adhere to the TMS Pros scheme, from 20 % in 2019 to 80 % by 2022.

The emphasis on prevention in the TMS Pros programme can be seen in the context of the priorities of the current and previous national OSH strategies, as summarised in Section 3.

4.2 Organisations involved

The programme is managed by the Health Insurance - Occupational Risks section (*Assurance maladies-risques professionnels*) of the National Health Insurance Fund for Salaried Workers (*Caisse nationale de l'assurance maladie - CNAM*) in close collaboration with The French National Institute for the Prevention of Occupational Accidents and Diseases (INRS) and with the participation and support at a local level from 15 regional offices of the Pension and Health at Work Insurance Fund (*Caisse assurance retraite et santé au travail - CARSAT*) and the Health Insurance Regional Fund (*Caisse régionale d'assurance maladie - CRAM*) Ile de France. The CNAM was set up in 1967, linked to the reform of the social security system. It was also assigned the task of managing occupational risks. The French Law No. of 25 April 1994 enabled the Health Insurance – Occupational Risks section (*l'Assurance maladie - risques professionnels, branche AT/MP*) - to acquire a certain degree of independence, in particular financial independence, while remaining within the CNAM.

4.3 What was done and how

The first phase of the TMS Pros programme targeted 8,000 companies, which represented about one third of enterprises with at least one worker who had taken MSD-related sick leave in the three years prior to 2014.

The first phase of the programme ran from 2014 to 2017, with a second phase planned for 2019 to 2022. The second phase will target 8,000 companies with a focus on the care work sector. Among them, 1,400 were already included in the first phase and had not completed the whole programme by the end of 2018.

The programme uses an online platform, where employers have a personal workspace to track their own progress. There is a strong emphasis on giving businesses ownership of the process, thereby encouraging them to complete the programme.

The process comprises the following four steps:

1. Ensuring management support for the project: the manager must be convinced that it is in the company's best interest to develop a MSD prevention strategy.
2. Setting up the project: the company should define the priority areas for action, inform workers about the initiative and designate someone to lead it.
3. Developing an action plan: the plan should comprise human resources, technical solutions and changes to work organisation.
4. Evaluating the results: the company should assess progress during the course of the project, including whether or not the internal skills and knowledge gained during the project are sustainable.

Enterprises can contact the regional office (CARSAT) to register for the programme and receive access to a restricted virtual space. Once registered, enterprises can benefit from assistance for MSD prevention tailored to their needs, including advice on the financial support available to them.

Since 2016, the initiative has provided financial support for small and medium-sized enterprises (SMEs). Enterprises with fewer than 50 employees can apply for co-financing of 70 % of the costs of training an internal project manager on MSD prevention and for commissioning an MSD study or action plan tailored to their needs. Once they have developed an action plan with someone qualified in MSD prevention, they can also apply for 50 % co-financing to buy technical equipment needed to implement the plan. Special prevention contracts also offer financial help to businesses with fewer than 200 employees. Innovative elements of this initiative include the provision of individual support at local level tailored to the needs of each company and the financial support provided for SMEs.

4.4 What was achieved

By the end of 2017, around 7,000 of the 8,000 businesses targeted had engaged with the process. Around half of these had set up an action plan, and almost 4,000 had reached the final evaluation stage, developing sufficient autonomy to manage their own MSD prevention programme.

4.5 Success factors and challenges

One of the success factors of the programme is the existence of a network of regional offices of CARSAT and CRAM that have expertise in MSD prevention and can offer local support to companies engaged with the programme. It was suggested during national focus group meetings that the TMS Pros programme has been successful in engaging with a wide range of companies, covering a variety of work challenges. The clear step-by-step approach, management of the process through the website, tailored support for companies when they need it and the financial support provided are all important factors contributing to the success of the initiative. Feedback from the businesses involved indicated that they particularly valued the involvement of experts from regional offices, who visited their workplaces to offer advice. One benefit of the use of external experts is that their skill and expertise can be used to ensure that participants adopt a holistic approach, considering all sources of risk (including psychosocial risks).

However, although the input from external experts is important, the scheme has a strong focus on training and development of in-house competence, necessary skills and abilities in MSD prevention, thus providing a degree of continuity and sustainability beyond the transitory involvement of external advisors. This is an important strength of the programme.

The process relies heavily on convincing business owners and managers that it is in their own interests to improve MSD prevention in their companies, which might be a challenge. Evidence from focus group discussions suggests that a large minority of employers do not engage with the risk assessment process (and subsequent prevention process) at all.

Future plans include targeting more businesses and ensuring that the work is better coordinated with other public services offering assistance in the area of health at work.

5 Other actions to tackle MSDs

5.1 Campaigns

In the period from 2008 to 2010, the Ministry of Labour conducted information campaigns aimed at raising awareness of MSDs. In the first year the campaign is considered to have made 91 % of the general public, 92 % of employees and 92 % of managers aware of the risks of MSDs to which employees are exposed in their work.

The second year of the campaign was aimed at encouraging employers, executives and all company stakeholders to take action to prevent MSDs, under the headline, 'Musculoskeletal disorders, prevention, let's all go for it', and the catchphrase, 'When an employee suffers, the whole company is weakened'. At the end of this campaign, 63 % of business executives interviewed were aware of the financial consequences of MSDs and 57 % felt motivated to act.

5.2 Initiatives by the Agricultural Social Mutual Fund (MSA) to tackle MSDs.

In France, 93 % of all occupational diseases in the agricultural sector are MSDs (MSA, 2016). In 2014 alone, 859,000 days were lost by agricultural workers because of MSDs (at a cost of around EUR 80 million).

The pilot project for the COSET programme (see Section 4), COSET-MSA, carried out in 2012, also provided some interesting results in relation to the health status and morbidity of agricultural workers, including on the prevalence of different types of MSDs. A total of 1,100 agricultural workers participated in COSET-MSA. The results show that MSDs account for the vast majority of work-related illness in the French agricultural sector. The study identified upper limb musculoskeletal symptoms in 54 % of male participants and 67 % of female participants, suggesting a need for preventive action. The pilot study was broadened to include a far larger sample of workers on a national scale. Questionnaire data collection ended in July 2018. The findings will be made available once the analysis is concluded.

As stakeholders in the national PST 3 strategy, and reflecting its aims, MSA has developed a sector-specific strategic plan (2016-2020) to improve the health and safety of workers in the agricultural sector. The plan lays out the strategic guidelines for conducting action programmes aimed at both salaried farm workers and farm owners and employers in the agricultural sector. One of the threads of this plan aims to prevent MSDs. This includes the deployment of a method of support that will mainly target small and micro enterprises.

The MSA has a long-standing health and safety policy. Prevention adapted to companies' needs is developed and implemented using multidisciplinary teams; more than 600 MSA OSH experts (prevention counsellors, occupational health nurses and medical doctors) are involved in the implementation of the national occupational health and safety plan for agricultural workers.

5.3 Organisation for the Prevention of Occupational Hazards in the Construction Industry

The sector-specific Organisation for the Prevention of Occupational Hazards in the Construction Industry (*L'Organisme professionnel de prévention du bâtiment et des travaux publics* — OPPBTP) provides guidance and assistance on the prevention of occupational risks in general in the construction sector through a network of 200 prevention counsellors within its regional structure. These counsellors help to initiate a collective approach in participating companies with a view to improving working conditions. Supervised by the OPPBTP advisor, internal teams (including employees) are encouraged to collectively identify preventive actions against OSH risks, with particular attention given to the risks associated with the onset of MSDs, the main occupational disease in the construction sector. The scheme's aim is to reduce accidents and occupational diseases related to physical activity by involving employees in the process of developing and implementing prevention measures.

5.4 Guidance and other materials

A number of resources have been developed and made available (to the public, employers and employees). These include a number relating to sedentary working and coping with chronic MSDs, those focused mainly on prevention, for example guidance relating to manual handling, back pain and upper limb disorders, and material relating to MSD risk assessments. A large number of these can be accessed through the TMS Pros and INRS websites. OPPBTP and MSA websites give also access to such resources ⁽⁸⁾.

6 Policy issues

One of the key challenges facing decision-makers, including legislators, in the area of public health and occupational health is to have a clear understanding of the nature of a problem and its causes and contributory factors. This enables them to make decisions on the basis of a strong objective evidence base. MSDs, with their multifactorial aetiology, are a particular example of this. The relatively 'blunt' measurement and statistical analyses provided by EU-level surveys do not provide the necessary detail and granularity to frame policies, strategies or interventions in a focused manner (relying instead on exhortations to 'tackle MSDs'). National data may risk introducing bias, especially if (as is the case in France) the data are drawn from schemes registering MSDs officially recognised as caused by work.

The lack of data and the inadequacies of the statistics available make it difficult (if not impossible) to carry out adequate evaluation and determine tangible and substantive impacts on what really matters, the prevalence of MSDs. This is a common theme to emerge from a number of countries.

In France, the need for large prospective general-purpose population-based cohorts for scientific as well as public health purposes has been recognised and highlighted in various official reports in recent years. The CONSTANCES cohorts are expected to address this problem. The CONSTANCES cohorts were designed to cover a wide variety of topics, with a special focus on occupational factors; these, combined with the COSET cohorts, designed as a surveillance tool for the whole working population, will generate knowledge and an evidence base that can be used in the development of policies for the prevention and control of health problems.

At the top level of policy lies legislation. Similarly to other EU Member States, France has transposed the provisions of the Manual Handling and DSE Directives into national legislation. As with most other Member States, it has baulked at the prospect of making specific prescriptive legislation to address those causes of MSDs not covered by these instruments (although unlike many it did enact legislation relating to the specific psychosocial risks associated with bullying and harassment at a relatively early stage). Participants in focus group discussions highlighted a problem with the current legislative framework in that it is highly prescriptive on some aspects of manual handling (specifically the weights of objects handled) but considerably less so in relation to other MSD risks. At a practical level, it has been indicated in focus groups that one consequence of this has been for many employers to focus almost exclusively on the weights of objects, leading to inadequate and insufficient risk assessments as a result.

Another challenge that France shares with other countries is the failure of many employers to engage at all with the risk assessment (and consequent risk prevention) process. A broad estimate of 50 % of employers failing to engage emerged during discussions. Although the statistical basis of this is not known, it is interesting that similar estimates emerged in discussions in other countries. Although the problem is recognised as greater among SMEs (and many countries, including France, have recognised the particular problems faced by SMEs and sought to address them ⁽⁹⁾) it is not exclusive to this group. At a policy level this calls for serious discussion, decision-making and the consequent allocation of resources. Where does the answer lie? Instruction and guidance appear to be relatively ineffective if employers are not even starting the engagement process (i.e. it does not appear to be an issue of them knowing that they should do something but not knowing what to do).

⁽⁸⁾ TMS pros: <https://tmspros.fr/TMSPROS/la-demarche/pour-en-savoir-plus>;
INRS: <http://www.inrs.fr/media.html?refINRS=ED%20860>; MSA: <https://www.msa.fr>; OPPBTP:
<https://www.preventionbtp.fr>

⁽⁹⁾ Over the period from 2014 to 2017, an innovative programme was run by CNAMTS supported by the French National Research and Safety Institute for the Prevention of Occupational Accidents and Diseases (*Institut national de recherche et de sécurité* — INRS), to support four professions made up of small enterprises. Further information is available at https://oshwiki.eu/wiki/Improving_occupational_safety_and_health_in_micro_and_small_enterprises:_feedback_on_French_experimental_programmes

Would stronger legislation provide an answer? It can be argued not if employers are not responding to existing legislation. What about increasing the number of inspections? A number of countries have reported on prevention initiatives centred on official inspection campaigns, with a specific focus on MSDs (often directed towards known high-risk industrial sectors). The evidence from such campaigns suggests that they are beneficial in prompting employers to take preventive action; however, this is a highly labour-intensive and therefore costly solution. Comments from a number of countries suggest that the resources made available to national inspectorates would need to be considerably enhanced to have any significant impact. Without this, comments in the focus groups indicate that inspections are seen as such an unlikely event that employers do not see the 'threat' of an inspection as real.

The approach embodied in TMS Pros (and also a feature of many other prevention initiatives, such as that operated by the OPPBTP) offers a number of policy and strategy pointers. First, is one of fostering collaboration and cooperation. Long-term sustained risk prevention requires the development of an appropriate prevention culture and process within organisations, which will not be attained through external experts 'imposing' solutions. Working with employers (and employees) to recognise risks and to develop the in-house knowledge and skills to address them offers a more sustainable solution.

Stakeholders need to be committed to the value of removing MSD risks. One consequence of improving the design of workplaces or work tasks is that it can make the work in question easier (and quicker). If the reaction to this (by employers or employees) is to do the work more quickly (perhaps enabling employees to finish work sooner or gain financial reward), this can be counterproductive as the increased rate of work can negate the risk prevention measures taken. Conversely, if measures taken tend to slow the process, then the short-term view is to reject the measures, losing sight of the longer term benefits (e.g. reduced absence or staff turnover). Opinions expressed in a number of focus groups and interviews (in France and elsewhere) suggest that messages regarding the cost-benefits of MSD risk prevention measures are failing to reach employers and that more effort (and perhaps a different approach) is needed to rectify this.

7 Conclusions

France has implemented a variety of policy-level MSD prevention measures, through various types of organisations. Programmes, actions, research and inspections have been implemented over the last 10 years, showing a willingness to confront this work-related problem. In addition, standards have been issued in the area of MSDs prevention by the AFNOR (*Association française de normalisation*), namely the standard X35-109 for manual handling and push-pull efforts ⁽¹⁰⁾ and X35-119 for repetitiveness ⁽¹¹⁾, to which several French organisms such as the INRS or the CNAMTS have contributed and have recommend their use. The strategic efforts seem to have positive results, as is evident from the gradual reduction in the rate of occupational diseases over the period. However, as these data are derived principally from records of officially recognised MSDs, they might not present the full picture; EU-level data for France, coupled with expert opinion within France, suggest that this is the case.

Expert opinion, expressed during national focus group meetings, suggests that part of the problem stems from the shortcomings in the legislative framework. It was suggested that national legislation relating to manual handling creates an undue (and somewhat simplistic) focus on the weights of objects being handled, to the detriment of the multiple other risk factors that interact with that weight. As in a number of other countries, the experts also recognise (and express concerns) that sources of MSD risks other than manual handling operations (such as repetitive jobs or work in awkward postures) are not explicitly addressed in legislative provisions (only being covered by the general provisions of national implementations of the Framework Directive). There is thus a body of expert opinion that this creates powerful shortcomings in the MSD prevention framework.

⁽¹⁰⁾ <https://www.boutique.afnor.org/norme/nf-x35-109/ergonomie-manutention-manuelle-de-charge-pour-soulever-deplacer-et-pousser-tirer-methodologie-d-analyse-et-valeurs-seuils/article/653116/fa172358>

⁽¹¹⁾ <https://www.boutique.afnor.org/norme/pr-nf-x35-119/ergonomie-manipulation-a-frequence-elevee-evaluation-et-valeurs-seuils-de-la-contrainte-biomecanique-des-membres-superieurs/article/822371/fa177817>

However, this perhaps presents an overly simplistic view. As in other countries, there are suggestions that many employers (particularly, but not exclusively, SMEs) are failing to engage at all with the risk assessment and prevention process, even within the existing legislative framework. Clearly, legislation is not enough. Regulation and enforcement need to be combined with other policy instruments.

Research into SMEs suggests a number of barriers, including lack of expertise, lack of time and the financial cost of interventions (upfront costs are often identified as a barrier). The TMS Pros initiative appears to go some way to addressing these. The scheme not only provides the necessary training (expertise) but also co-funds the costs of that training (including the time spent engaged in training activities) and can support the cost of interventions.

It appears unlikely that shortcomings in the MSD prevention framework are the result of a lack of suitable information. As in many other countries, the French OSH community (especially the national bodies such as INRS) has made extensive information and guidance material on MSD prevention readily available. Much of this has been tailored to be of relevance to specific sectors, again removing a commonly cited barrier. However, the availability of information and guidance does not guarantee uptake.

A key final pointer is that all stakeholders (both strategically and in the workplace) need to see the need for change, to be committed to that change and to be willing to work together to develop and introduce change measures.

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Project Management: Katalin Sas, European Agency for Safety and Health at Work (EU-OSHA), with the support of Nóra Palmai

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This discussion paper was commissioned by the European Agency for Safety and Health at Work (EU-OSHA). Its contents, including any opinions and/or conclusions expressed, are those of the authors alone and do not necessarily reflect the views of EU-OSHA

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