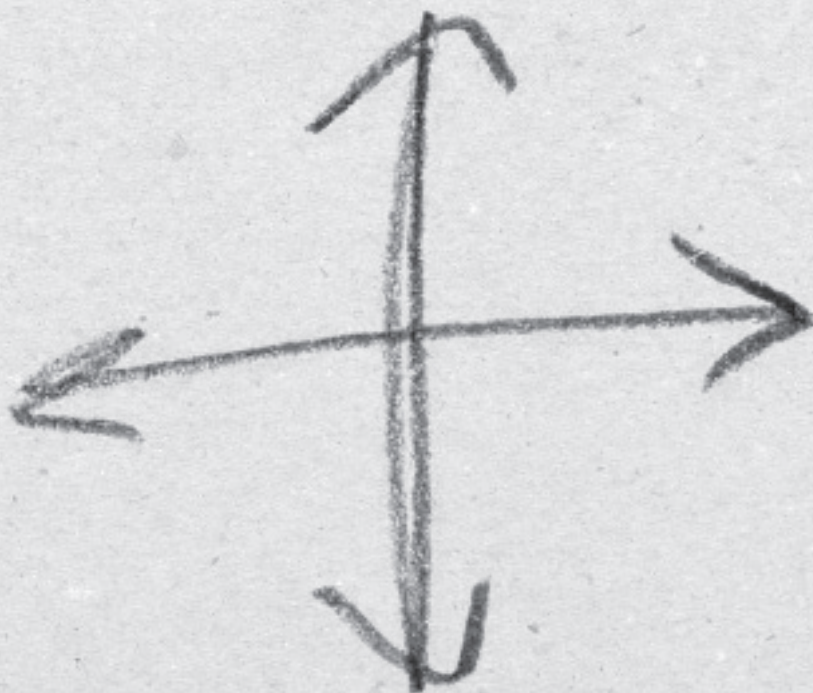


# **Occupational safety and health in 2040**

## **Four scenarios**

Edited by  
Aída Ponce del Castillo  
and Sascha Meinert



**etui.**



# **Occupational safety and health in 2040 Four scenarios**

## **How will the next generation in Europe deal with occupational safety and health issues?**

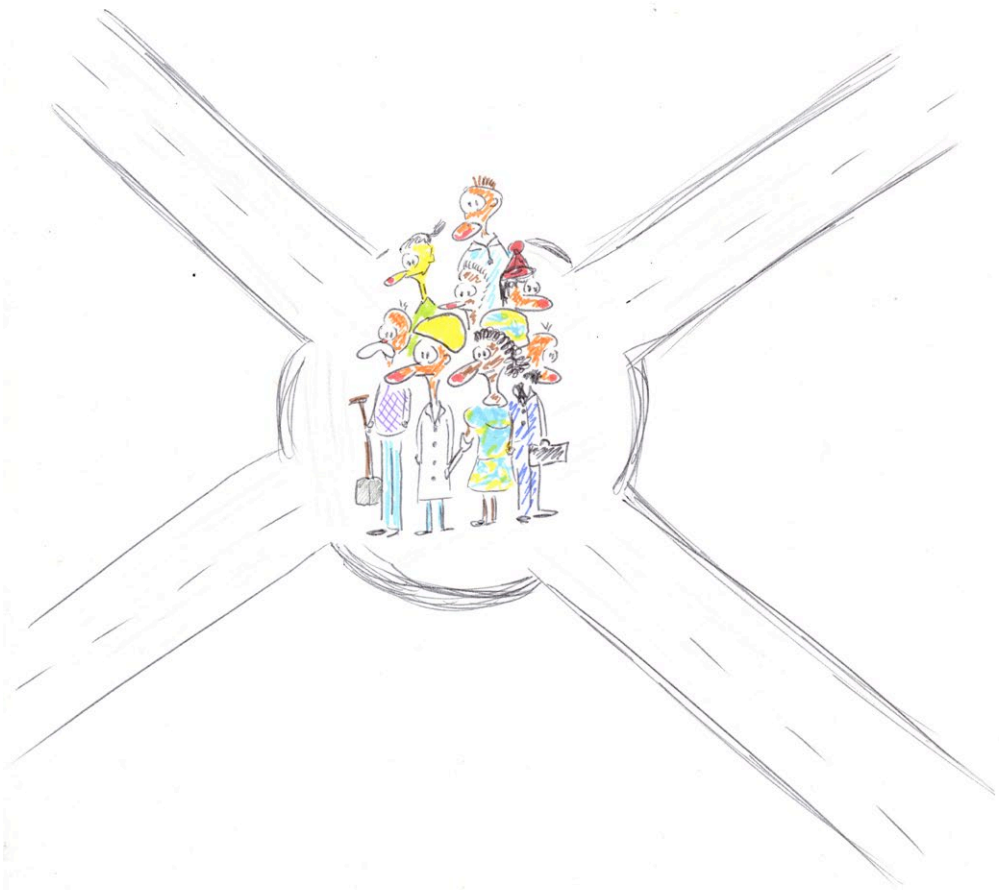
Edited by  
Aída Ponce del Castillo  
and Sascha Meinert

A project of the  
European Trade Union  
Institute (ETUI)  
in cooperation with the  
Institute for Prospective  
Analyses (IPA)

**etui.**

“The future is already  
here — it's just not very  
evenly distributed.”

William Gibson



Bernard



# Contents

<b>1. Project aims and background</b>	<b>6</b>
<b>2. Scenarios – An invitation for dialogue</b>	<b>7</b>
<b>3. State of occupational safety and health: Challenges today</b>	<b>9</b>
<b>4. On the way to 2040: Four scenarios</b>	<b>13</b>
Short versions and quotes of "contemporary witnesses"	<b>15</b>
I. Wellbeing	<b>17</b>
II. Self-reliance	<b>23</b>
III. Productivity	<b>29</b>
IV. Protection	<b>35</b>
Matrix: Some key features of the scenarios	<b>40</b>
Long versions	<b>43</b>
I. Wellbeing	<b>45</b>
II. Self-reliance	<b>51</b>
III. Productivity	<b>59</b>
IV. Protection	<b>67</b>
<b>5. How to work with the scenarios</b>	<b>75</b>
<b>6. Course and participants of the project</b>	<b>79</b>

# 1.

## Project aims and background

Aída Ponce del Castillo and Viktor Kempa (ETUI)  
Sascha Meinert (IPA)  
March 2016

Occupational safety and health and the workplace environment have developed progressively. However, in recent years, technological changes and new forms of work have intensified working conditions, and intense political struggle over this field has made attention to workplace health and safety all the more urgent. This is why the European Trade Union Institute (ETUI) has developed a set of scenarios about how the next generation in Europe will deal with occupational safety and health issues in 2040. The project illustrates possible alternative long-term developments for occupational safety and health in the European Union. The starting point and underlying question for the project was: “How will the next generation in Europe deal with occupational safety and health issues?”

The four scenarios presented in this publication have been framed through a participatory process by a group made up of stakeholders and experts. The goal was to establish a common frame of reference devised to give direction to possible actions and strategies in the years ahead. Therefore, as a first step, we conducted a survey via an online questionnaire, with more than 50 experts sharing their views on the future of OSH in the

European Union. Thirty of these experts then participated in two workshops, where the basic logic behind the scenarios was developed. Following the scenario workshops, the scenario narratives and accompanying material were edited. The project was conceptualised and facilitated by the European Trade Union Institute (ETUI) in cooperation with the Institute for Prospective Analyses (IPA).

The impetus for the venture came from the finding that the current crisis is producing worsening working conditions, and that this trend is being exacerbated by the spread of various forms of inequality and growing job insecurity. At the same time, the EU’s policies on health and safety at work are in flux, and it is uncertain how they will develop over the next decade and beyond. The future is open. The course of many influencing factors is not foreseeable, yet many choices still need to be made.

The project does not aim to predict the future but to identify and explore the challenges of different but altogether plausible futures and to facilitate dialogue to achieve concrete action involving various stakeholders and policy proposals. On this basis, we hope to take some key uncertainties and choices into consideration and to assess the soundness of today’s strategies and actions. The scenarios are meant as an invitation to a constructive dialogue among practitioners and different groups of stakeholders involved in shaping the future of OSH in Europe. Every feedback and contribution to this strategic conversation is welcome.

Why 2040? Because resources, mindsets and policy approaches are more or less already in the pipeline for the next couple of years. Real changes in OSH will take time to be realised, and the consequences of these changes will only become apparent at an even later date.

This means that the time horizon of the scenarios is the world of the next generation. And even if we do not yet know the future, what can be said for sure is that the values, strategies and policies that will be implemented in the coming decade will have an impact on the working environments and health and safety issues with which our children will be confronted. One way or another, we are shaping the context they will face. Let’s work together for a decent one.



# 2.

## Scenarios – An invitation for dialogue

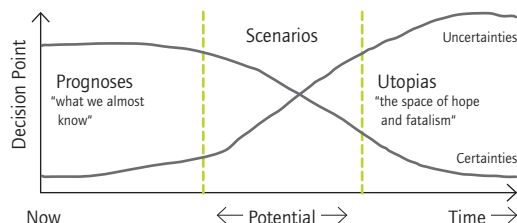
"Scenarios are stories about the future, but their purpose is to make better decisions in the present."

Ged Davis

We do not know how occupational safety and health in the EU will look in ten or even twenty years' time. We cannot predict the future – because it is open. The good thing is that we thus have the opportunity to exert influence. The difficulty is that we must always decide and act under uncertainty – without knowing in which longer-term context today's decisions and actions will unfold. Normally, the picture that we have of future possibilities is very limited, as is our influence. Reductionist analyses always bear the danger of missing the forest for the trees. Too often the harried and varied demands of everyday (working) life dominate, as do upcoming deadlines, isolated symptom observations and mere extrapolations of current trends. And only when things reach bursting point is something done – in reaction and under pressure.

By using scenarios, we can broaden our view of longer-term opportunities and risks and strengthen the integrity of today's decisions and actions. Good scenarios are plausible, but at the same time novel and challenging. They open up new perspectives. This said, they are not meant to predict the future. There is always more than one plausible scenario – so this approach is different

to forecasting. But scenarios also differ from utopias, which are normally located in a "far-away land" and in an "indeterminate time", as they take into account the present and its associated path dependencies, thus providing a clear link to today's starting position. They exist in the no-man's-land between what we already almost know of the future, and what is still completely uncertain:



Instead of a clear answer to the question of how the future will look (like a prognosis), key uncertainties – which we regard as essential – are made explicit: What factors will have significant influence, but are highly uncertain to occur from today's perspective? Which causal relationships could promote the development of one or another outcome? An important aspect here is that scenario-building forces contemplation about what is really important for a certain underlying issue. To take decisions and action, we must simplify reality. The question is thus: What do we consider and what do we leave out? Developing and using scenarios are not about taking every single aspect into account, but about deciding on priorities and significance – and thus making explicit the thought patterns with which we (unconsciously) explain the world. In the course of intensive discussion and exchange on given issues, different theories arise about which fundamental alternatives the future holds in store.

The process of creating scenarios can be described with six basic steps:

1. Choosing and approaching the topic/question and time horizon ("collecting the voices" of different groups of stakeholders);
2. Identifying and ranking the major uncertainties (& givens);
3. Naming the basic alternatives;

4. Building a common frame of reference – a “compass” for the time horizon;
5. Plotting a scenario narrative for each quadrant; and
6. Reflecting/refining the scenarios (and their implications).

Resulting from this approach, scenarios illustrate the identified development alternatives with their own specific challenges – for orientation, exploration and weighing. The investigation and playing through of scenarios aid preparation for different developments. As Louis Pasteur once put it: “Luck favours the prepared mind.” Scenarios thus help to overcome the passive mode of “Hopefully nothing bad will happen!” and support an active attitude, asking “What could be my room for manoeuvre?” or “What options do we have, if this or that happens?” Eventually, every set of scenarios also poses normative questions like: “Which scenario would I like to support?” or “What can we do to prevent this or that development?”

A set of scenarios thus provides a frame of reference – a “map for the time horizon covered by them” – while also triggering constructive exchanges and strategic talks with others. Scenarios are – because they are framed in stories – easy to remember and to communicate. They not only inspire thinking but also kindle emotions. They are multifaceted and ambiguous, have bright and dark sides – just like real life. In this sense, scenarios are to be understood as an invitation to dialogue, to communicate with others about what will be of importance for the future, in what future we want to live, and what we must do to take advantage of today’s potential.

#### **Read more about why and how to develop scenarios:**

Kahane A. (2013) Transformative scenario planning: working together to change the future, Berrett-Koehler Publishers, San Francisco.

Meinert S. (2014) Scenario building, Field manual, ETUI, Brussels. [www.etui.org/Publications2/Guides/Field-manual-Scenario-building](http://www.etui.org/Publications2/Guides/Field-manual-Scenario-building).

Schwartz P. (1996) The art of the long view: Planning for the future in an uncertain world, 2<sup>nd</sup> ed., Doubleday, New York.

van der Heijden K. et al. (2002) The sixth sense: Accelerating organizational learning with scenarios, John Wiley and Sons, New York.

# 3. State of occupational safety and health: Challenges today

“Every 15 seconds, a worker dies from a work-related accident or disease and 153 workers have a work-related accident.” ILO, 2015

## State of play

Occupational safety and health (OSH) is a multidisciplinary science and at the same time a highly practical issue for each workplace. The implementation quality of OSH measures has a strong impact on each worker. In every society, OSH is shaped in a context of the labour market and industrial relations, making it inevitable that the socio-political and economic environment will have a direct influence. In the case of the EU for instance, we cannot consider the whole environment as being homogenous, a fact that makes the task of thinking about the future even more challenging.

OSH itself faces many challenges, long-term problems and open issues despite the many positive developments of the last two centuries. One of its significant features is that workers still die, suffer injuries and

contract work-related diseases although in theory there is sufficient knowledge, experience, written rules, standards and laws in Europe and throughout the world. The knowledge which can lead to much higher levels of worker protection is not sufficiently implemented in workplaces.

According to estimates of the International Labour Organisation (ILO), more than 2.3 million deaths are caused by work-related diseases and accidents annually. Of these, 350,000 workers are killed by accidents at work. 317 million work-related accidents leading to lost time occur each year, and 160 million workers contract a work-related disease. The economic consequences amount to 4% of Gross Domestic Product in terms of losses, while direct and indirect costs amount to around 2.8 trillion USD. The human costs, including victims' families, are enormous. [www.ilo.org/europe/info/news/WCMS\\_374966/lang-en/index.htm](http://www.ilo.org/europe/info/news/WCMS_374966/lang-en/index.htm)

Workers remain exposed to traditional hazards like noise, vibrations, repetitive movements, electricity, heavy lifting, work at heights, work with improper equipment, heat or cold, exposure to chemicals, dust or gas, etc. They can suffer inter alia from poor work organization, working time arrangements, a high pace of work or from overdemanding tasks. Modern-day work brings with it new and emerging risks, in particular associated with advanced technologies and high demands on workers' skills, flexibility and workload on the one hand and job insecurity on the other.

These faults can be ascribed especially to those organizing work – employers and company owners –, as they are the ones hiring and employing workers, while also assuming responsibility for their working environment, work processes and in general for OSH.

The current European framework defines minimum standards which, when applied, should provide workers with a high level of protection. Yet workplace reality is different. European surveys looking at various OSH data show that the improvements are far from achieving the desired targets. At EU level, more than 4,000 workers are killed every year by accidents at work and more than 3 million are victims of serious work-related accidents leading to lost time. 24.2% of workers consider that their OSH is at risk because of their

work, 25% declare that work has had a mainly negative effect on their health, etc. The gap between the EU's OSH policy objectives and reality remains large. The current socio-economic context is not conducive to any change in the near future. Europe is faced both with a global competitive environment and with an ageing working population. Member states are demanding a more liberal EU, "European deregulation", with less decisions and control emanating from Brussels. Migration is even leading to a watering down of existing rules and to the non-implementation of binding regulations. The EU has given up on certain statistics, e.g. on occupational diseases.

The EU Occupational Safety and Health Strategic Framework 2014-2020 has been designed as a tool for improvements over the next 5 years. Improvements are to be achieved primarily through improved OSH performance in Member States, better prevention of work-related diseases and the tackling of demographic change. None of this seems realistic.

### **What are the latest challenges to occupational health and safety?**

The challenges faced by occupational health and safety are very wide-ranging and complex. In recent years, additional pressure has been put on protecting the health and safety of workers by an increasingly global, fast-changing and competitive working environment, as well as by new uncertain hazards, high unemployment in many regions and the atmosphere of deregulation. These challenges have been taken into account and are described in the 4 scenarios presented below.

Being aware of the challenges affecting occupational health and safety is a must for all stakeholders: decision-making bodies, national authorities, labour inspectorates, employers in all industrial sectors, works councils, researchers, scientists and ethicists; occupational doctors and preventive services; insurance companies, trade unions, non-governmental organisations, standardisation bodies, international organisations, etc. All have a role to play in taking responsibility for and improving occupational health and safety.

Despite current trends, occupational health and safety is of key importance and is

supported by a comprehensive EU legislative framework, ILO conventions and recommendations, and scientific evidence on diseases, accidents, hazards and risks, all of which are based on the fundamental principle of prevention. Occupational health and safety is a basic human right that remains unsatisfied.

The challenges that we are now facing are short- and long-term and can be divided into 5 main categories, contributing to a better understanding of what health and safety means for society.

### **Challenges related to the current situation**

Numerous physical, biological and chemical risks, accidents, occupational diseases and exposures – so-called traditional and known risks – still need to be prevented and managed. In short, we are looking here at risks that have not been completely eradicated. The most common example is asbestos, which remains a health and safety problem in the EU.

Similarly, exposure to hazardous substances and mixtures such as benzene, organic solvents, pesticides, metal fluids or wood dust, noise and vibration, remains a work hazard. Their presence is detrimental to the workforce, the industry and the state. In addition, climate change is now affecting numerous sectors such as agriculture, forestry, transport, tourism and services, among others.

Additionally, experts indicate that the burden and cost of occupational diseases and work-related injuries remain high. As occupational health services have insufficient capacity and resources throughout the EU, prevention is not implemented seriously, OSH policies are weakened, and the approach to dealing with and managing health and safety issues is changing – for the worse. Taking cost/benefit considerations into account is becoming a trend, with companies pursuing safety on the basis of economic rationale, often looking for the cheapest solution instead of investing in prevention and reaping benefits in the long run.

### **Challenges related to demographic change and wide-scale migration**

Europe is facing new challenges related to the composition of the workforce: population ageing is causing the retirement age to

go up, yet at the same time requirements are increasing with regard to the employability of older workers, new skills and knowledge, co-working with young workers, etc. Moreover, inequality between men and women is increasing, as greater female labour market participation leads to the emergence of more specific risks for female workers. New invisible risk factors may appear and lead to diseases that take years to finally manifest themselves (as with asbestos).

Europe is facing a huge migration wave from third countries, bringing opportunities but also threats to the European labour market and social security systems. Migrant workers, whether over- or under-skilled, could become more vulnerable. Although very little data currently exists, fatalities would seem to be higher among migrant workers. Their workplaces are melting pots of different cultures; they are and will be constantly confronted with difficulties in gaining decent working conditions, having accidents and illnesses reported and compensated, communicating, gaining access to training, etc. How can we ensure that preventive policies actually reach them? How can we maintain current standards nurtured over centuries in Europe? How can we evaluate and efficiently respond to OSH challenges when changing populations and work patterns are leading to more and more informal work organisation and redefining society as a whole?

### **Challenges related to healthy employment conditions and their impact on society**

Fitting the job to the human being – rather than the other way around –, preventing new work-related hazards or diseases and eliminating precarious working conditions in large, medium, small and micro-enterprises all fall into this category.

Adverse working conditions – work-related stress, musculoskeletal disorders, burn-outs and work-related violence – are thriving at all workplace levels. In this particular field, preventive policies are non-existent and the level of uncertainty remains high.

Assessing the impact on society is slowly moving towards merely considering the costs or benefits, but how can one calculate the value of a person's reduced health or wellbeing?

### **Challenges related to the future of work and emerging technologies**

Seen as a key tool for development, innovation is a core objective for Europe. Innovation, new technologies and new processes influence the way we work and the conditions under which we work. We are heading towards a 4<sup>th</sup> industrial revolution with direct and indirect impacts on health and safety. Do health and safety need to be managed differently following the introduction of new technologies, innovative processes and big data? How can we respond to this challenge?

Europe is pushing ahead with the development of key enabling technologies like nanotechnologies, synthetic biology, digital, ICT and virtual technologies, genetic engineering, robotics and unmanned vehicles. A key question is whether the human factor is sufficiently taken into account in such developments. Is there a focus on safety or is priority given to factors related to production and the marketing of what is produced? Another key question is whether innovation takes place through a long-term and multidisciplinary approach.

This evolving 4<sup>th</sup> revolution also implies developments aimed at improving human capabilities, targeting performance and skills, brain-computer interfaces and human enhancement. But it also poses a great challenge to individuals and many occupations. How is this going to improve overall human wellbeing? Reflection on these aspects and their potential harm is still in its infancy.

Introducing innovative processes and technologies, substituting manual work by robots or other automated machines can also generate new or unknown hazards, potentially leading to new and unknown accident forms or diseases. Innovation should not take place without taking health and safety and ethical considerations into account, and without genuinely discussing its potential benefits for human beings.

### **Challenges related to policies and regulations**

So far, legislation has taken a rather reserved position on tackling changing working conditions and the OSH spectrum. The challenge here relates to an apparent reluctance to apply prevention strategies and enforce rules.

This has allowed private-sector players to position themselves as solution makers and to develop self-regulatory instruments which can contradict fundamental principles. Such efforts can also undermine the guarantees and protection that rules are meant to offer to all involved, while also interfering with the support provided by different institutions and agencies working on OSH prevention and influencing national policies.

In addition, policies and regulation are now facing difficult times. The Better Regulation agenda targeting the planning and designing of (de)regulation and aimed at achieving a simple and less costly acquis is a

priority for some regulators. Since 2015, the whole EU OSH acquis has started to be assessed solely from such a cost perspective, with worrying potential consequences.

Summing up, the work done on OSH scenarios has helped take stock of the current situation. The challenges faced by OSH at the beginning of the 21<sup>st</sup> century have not changed dramatically, though they have certainly become more complex. The scenarios should be used to reflect on how society can deal with all the challenges described above and how it will respond to the key question: which OSH legacy will we leave to future generations?

“Whereas universal and lasting peace can be established only if it is based upon social justice;

And whereas conditions of labour exist involving such injustice, hardship and privation to large numbers of people as to produce unrest so great that the peace and harmony of the world are imperilled; and an improvement of those conditions is urgently required; as, for example, by the regulation of the hours of work, including the establishment of a maximum working day and week, the regulation of the labour supply, the prevention of unemployment, the provision of an adequate living wage, the protection of the worker against sickness, disease and injury arising out of his employment, the protection of children, young persons and women, provision for old age and injury, protection of the interests of workers when employed in countries other than their own, recognition of the principle of equal remuneration for work of equal value, recognition of the principle of freedom of association, the organization of vocational and technical education and other measures;

Whereas also the failure of any nation to adopt humane conditions of labour is an obstacle in the way of other nations which desire to improve the conditions in their own countries...” ILO Constitution, 1910



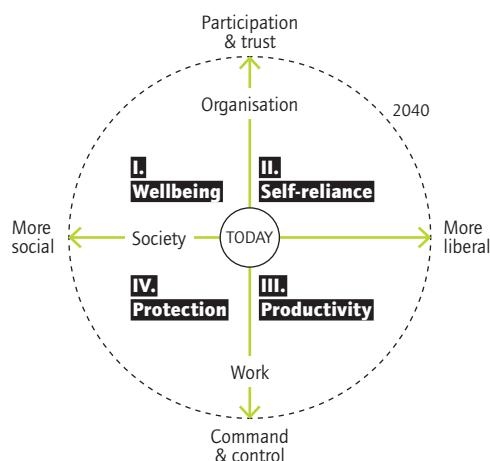
# 4.

## On the way

## to 2040:

## Four

## scenarios



Based on the results of the qualitative online survey of more than 50 stakeholders in the first project phase and two subsequent scenario workshops with some 30 participants, four scenarios were elaborated, each illustrating a different possible future.

In the view of project participants, two basic uncertainties were seen as crucial for the long-term future prospects of OSH in the European Union:

- Compared with today, will the socio-economic fabric of European societies become more liberal or more social-oriented?
- Will the overall situation in the field of work organisation and labour relations be characterised by more participation and trust in 2040, or will more authoritative and rigid approaches prevail?

Starting from these two “basic axes”, many further variables and aspects were explored, all of which will certainly have an impact on how the next generation in Europe deals with occupational safety and health issues. The scenario narratives also indicate some impacts and challenges, as well as defining the room to manoeuvre.

The titles of the scenarios, **wellbeing, Self-reliance, Productivity and Protection**, already give a first hint of the main forces and motivations driving the development.

As these scenarios are only rough sketches of what might unfold in the future, they are meant as an invitation to fill them with additional aspects and implications. Use of the scenarios should include reflection about possibilities for making a difference and discussing with others the question: “How should workplace health and safety look in the future, in the working world in which we, and respectively our children, will live?”





**The scenarios**

**Short versions  
and quotes of  
contemporary  
witnesses**

"HEALTH IS VERY VALUED"



"IF YOU ARE NOT ABLE TO CONTINUE TO WORK IN YOUR OLD JOB, YOU ARE OFFERED ANOTHER ONE IN THE COMPANY- OR ANOTHER COMPANY. THE SAFETY NET IS THERE, AMAZING."

"EVERYONE, REGARDLESS OF THE KIND OF WORK OR TYPE OF CONTRACT OR EMPLOYABILITY, IS INVOLVED IN SHAPING OSH AND GOOD WORKING CONDITIONS."

"PEOPLE FEEL THEY HAVE SOME CONTROL OVER THEIR WORKING CONDITIONS."



"FINALLY OSH HAS BECOME A VERY IMPORTANT ISSUE FOR ALL STAKEHOLDERS. PROBLEMS ARE SOLVED THROUGH SOCIAL DIALOGUE."

*Per-ecol*

# I.

# Wellbeing

## 2020

There is a growing perception that the economisation of ever more spheres of life and the excessive reliance on competition and market forces have contributed to social upheavals, economic imbalances and increasing environmental problems in Europe. After decades of lip service, the paradigm of sustainable development is gaining true appeal. Other development drivers are the changing needs and values of an ageing society. Workforce ageing is leading to a stronger focus on health-related issues in working environments. And “sustainable employability” goes far beyond the conventional semantics of reducing work-related accidents and diseases. We thus need a more comprehensive wellbeing approach.

Fortunately, the change does not have to come out of the blue. Countless experiments of value creation and contributing to the common good, new socio-economic indicators and reporting standards have contributed to finding the path to sustainable development. Even if many of these pilot schemes and new concepts remain dubious, often more hype than real gamechangers, together they have

prepared the ground. But transformation is turning out to be a bumpy ride. In many areas, the shift towards an eco-social economy is much harder than expected, and often the devil is in the details. Many initiatives and changes initially failed due to resistance from those who would have been negatively affected. It becomes clear that both an appropriate legislative framework and participation of all stakeholders are needed – as is a new balance between public and private, collective and individual fields of action.

One side-effect of the development is that general public health and occupational health are increasingly seen as two sides of the same coin. In practice they are becoming more integrated. With growing awareness and demand for healthy working conditions, election programmes throughout Europe are putting more emphasis on ideas to enhance wellbeing at work. Trade unions and worker representatives are pushing for stronger influence in shaping working environments to make them healthier and safer. Many employers are exploring new ways of enhancing the wellbeing and employability of their workforces – and are demanding an appropriate level playing field. Thus, after years of

stagnation in the field of OSH in the first and second decade of the 2000s, common regulation in the European Union is set to regain influence and strength in the 2020s.

Based on many consultations and stakeholder processes, EU working standards in general and OSH standards in particular are gradually extended and implemented for all kinds of workers – no matter whether they are permanent workers, temporary staff or self-employed. The underlying premise is that every worker has the right to the same level of protection, independent of the form of contract. The rising degree of transparency, made possible through the use of new monitoring technologies and digitalisation, is boosting compliance with environmental and OSH standards. Labour inspectorates are further developing their cross-border cooperation. The development is also marked by an increase in public funding to enhance the quality of working conditions, e.g. through measures for specific groups and increased financial support for OSH-related NGOs, more state-funded research projects, continuous skill-upgrade measures for labour inspectors, more money for preventive services and external expertise, and investment in education and the empowerment of workers and their representatives. Many interventions and policy measures target the most vulnerable and disadvantaged groups, with the goal of decreasing health inequalities.

Occupational psychology has become an integral part of OSH legislation in the EU. Mental wellbeing is high on the agenda and part of regular personal health checks, now routine in many companies. Another shift is marked by the growing awareness for gender-related aspects of health and safety at work. A gender impact assessment is now obligatory for every new legislation initiative in the field of OSH, as well as special monitoring provisions regarding the implementation of gender-related measures in companies. With the growing number of “green jobs”, new OSH challenges are emerging, including waste management and urban mining, new recycling technologies and processes, “advanced materials”, and applications of modern biotechnology. These bring about occupational exposure to biological agents, chemicals and new materials, and thus generate new health

risks. Moreover, in the wider field of low-carbon technologies, new risk profiles must be tackled. Thus, the greening of the economy is accompanied by many new challenges for OSH.

## 2030

The trend towards more EU regulation has triggered complementary and adjusting dynamics and initiatives at branch or company level. The majority of employers need to realise that a highly committed and motivated workforce cannot be achieved through “command and control”. Work-to-rule employees are hardly conducive to a prospering business model. Besides, permanent surveillance and using coercion to get people to work are costly. Many corporations are increasing the involvement of worker representatives in OSH strategy-building and decision-making.

Of course, such consensual decision-making design requires much time and resources. Nevertheless, the common perception is that “shooting from the hip” does not normally lead to sound results, a finding considered to be especially true with regard to the use of new technologies. There is a growing sensibility to risks, and in cases of doubt about the consequences of new technologies, processes and substances, a precautionary approach is seen as the appropriate frame of reference. Nevertheless, European societies are by no means technophobic, with technological innovation seen as a *sine qua non* for transforming the economy.

More and more issues in support of wellbeing at work are being explored. For example, long commutes are seen as a health risk and are put on the OSH agenda, as are exposure to permanent low-level noise and the mainstreaming of a “healthy workplace design”. Progressive companies are experimenting with workplaces that energise employees when they are tired and calm them when they are stressed or angry. Another trend is the deceleration of work, for example, through the implementation of 90-minute work cycles, more time buffers and better workload monitoring. Average weekly working time has dropped to around 30 hours, giving employees more time for other tasks, such as domestic work, childcare and eldercare.

In cases where OSH-related measures and the “architecture of wellbeing” require major investment, it is initially not easy for many companies to maintain competitiveness. Being a “front-runner” in the field of OSH can be a hard job. But in the long run these investments pay off as more and more employers follow this path of change – in Europe and abroad. Many technological innovations for healthier working environments have become a powerful economic driver and export hits for European producers.

## **2040**

In 2040, workers have numerous opportunities for being involved in and shaping their working environments. Both collective and individual participation are encouraged. Generally, labour relations have become more cooperative and partnership-based. Diverging interests are tackled through a fair legal framework, strong social dialogue and institutionalised forms of finding a balanced compromise at an appropriate level. Working conditions in Europe are much healthier than they were twenty years ago. Society and politics have become considerably more inclusive. Even if some commentators sometimes complain about “sustainability fetishism” or “ever-present healthism”, the dominant feeling is that we have accomplished a great transformation in many aspects.



COMMON PROBLEMS  
NEED COMMON SOLUTIONS;  
WE CAN COME TOGETHER TO WORK  
FOR A SUSTAINABLE FUTURE



Bernard

**Citations from “contemporary witnesses” of the “Wellbeing” scenario\***

“If you are excluded from work after a serious accident, your income will be safeguarded. And if you are unable to continue to work in your old job, you are offered another one within the company – or in another company. The state safety net is there, amazing.”

“Everyone, regardless of the kind of work or type of contract or employability, is involved in shaping OSH and good working conditions.”

“All parties – workers, employers, governments, service providers – are interested and active. New risks are managed or avoided in innovative ways – and successfully.”

“Strong involvement of workers’ interests.”

“More connections, more support.”

“People feel they have control over their working conditions. Their health and safety are safeguarded by the state. Precarious workers gain stability and support from the society.”

“There is a strong state, responsive to workers’ needs.”

“There is room for everybody. People are safeguarded on an equal basis by common rules and regulations.”

“OSH has finally become a very important issue for ALL stakeholders. Problems are solved through social dialogue.”

“Health is highly valued.”

\* Excerpts taken from a group exercise during the second scenario workshop, in which participants summarised their basic impressions of each scenario.





"OSH IS A VERY PERSONAL AFFAIR,  
WITH WORKERS BEING RESPONSIBLE  
FOR THEIR OWN PHYSICAL AND  
MENTAL HEALTH."

"I FEEL INSECURE ABOUT THIS. I MAY BE LUCKY  
TO GET A JOB AT A PROGRESSIVE COMPANY.  
BUT I MAY AS WELL BE UNLUCKY TO BE  
AT A GREY OR BAD COMPANY WITH LITTLE  
AMBITIONS TO OSH. (...) I WILL DO MY BEST-  
TOGETHER WITH MY COLLEAGUES."

"WORKERS ARE USUALLY INVOLVED IN OSH.  
BUT DECISIONS ARE OFTEN BASED ON  
INDIVIDUAL RATHER THAN SOCIAL  
CONSIDERATIONS... HOWEVER, PEOPLE  
CARE FOR EACH OTHER."



"THERE IS MUTUAL TRUST AND PEOPLE  
ACT RESPONSIBLY. TALENTS  
ARE ADDRESSED AND NETWORKING  
IS ESSENTIAL."

Bernard



**II.****Self-reliance****2020**

Compared with other regions of the global economy, OSH legislation in the EU in the early 2020s still ensures relatively sound minimum standards to avoid exploitation and unhealthy practices. But as a general trend, political initiatives in the field of OSH have become more oriented towards soft law, best practices, non-binding guidelines and empowerment programmes than legal standards. The widespread conviction is that some purposeful nudges in the “right direction” can change much more than new laws. Instead of setting binding targets and enacting regulations, more attention is paid to empowerment, enhancing information flows and increasing transparency, providing incentives, supporting research and spreading knowledge of best practices. Positive sanctions, like awards, trust labels and reduced social security contributions are preferred to rigid rules and punishments.

In these years, the economic fabric is undergoing profound changes. In response to the growing external complexity of market environments and value chains, most corporations have also increased their internal

complexity. By and by, former hierarchical organisational structures are changing into fluid networks. Innovations in the field of ICT are enabling easy and efficient interaction among multiple players, while transaction costs within such networking platforms are decreasing. Large companies are being divided into smaller autonomous units. The number of interconnected small and micro-sized businesses is rising sharply. Trade unions and employer organisations are shrinking both in membership and influence. There are few industries and branches left in which collective bargaining still plays a strong role.

There is also a considerable shift in what motivates people to work. They want work to be personally meaningful and stimulating. Due to the relatively stable economic situation and labour market, people have become more experimental, audacious, playful and active in searching for new ideas and opportunities. There is a widespread aversion towards authoritative management styles. Many prefer to work in improvisational, self-organized working environments. Healthy and energising working conditions are becoming an important factor for attracting new team members. While many of these trends originated

and grew in the service and knowledge economy, they are spreading, changing practices in other sectors and branches.

All in all, work organisation is becoming more result-oriented, with the result that individual autonomy and responsibility are increasing. Many aspects of workplace health and risk-handling have become a matter of choice and preference. The widespread practice of “bring your own device” and the increase in working from “wherever you want” are requiring more individual awareness of ergonomic factors, exposure to unhealthy environments, workload and breaks, and so on. For example, employees who work frequently from home get paid a lump sum for the equipment, and contractors get a general budget for the work they deliver. They can individually decide how much they spend on an ergonomic chair or an eye-friendly interface. Many literally become short-sighted through such freedom of choice.

Taking responsibility and deciding on so many aspects of their daily work life is just too much for many employees – too much information, too many choices. Furthermore, for many employees working alone leads to a decrease in social contacts and exchange. In many aspects, the “lone fighter phenomenon” is thus creating new physical and psychosocial risks. To compensate for this trend, a broad variety of informal networking activities is growing. Web communities emerge around specific risks and diseases, prevention and treatment methods. In their personal and often values-based networks, more and more people acquire a sense of community support for work-related problems and a sense of belonging. Special consultancies aimed at keeping individuals agile and healthy are well-established on the market. For those who can’t afford professional help, self-aid-groups, open platforms and voluntary mentors provide support.

A widespread management trend is the increasing gamification of work in general, and OSH in particular. The premise is: If you want people to be aware and engaged, make tasks and obligations a game. Many employers are doing just this. More and more companies are learning to “game the system” to inspire safe and healthy behaviour among employees and to gain better safety records.

Earning points for team-based performance, company-wide “risk-awareness quests” and awards are thus triggering motivation, excitement and fun. Measures are becoming increasingly focused on health and safety issues. An overall goal is to implement positive feedback loops that enhance an “awareness culture” at work.

Due to the lack of formalised rights and standards or collective representation, the importance of individual means of involvement in questions concerning OSH is increasing. More and more workers are becoming active “managers”, primarily of their own health and wellbeing, but increasingly also assessing the situation and needs of their colleagues. Of course, very unhealthy working environments still exist in some companies or branches, but grievances normally do not remain undetected for long. It is very easy to become a community activist and make information about bad company behaviour available on the net. Eradicating work-related hazards and diseases is no longer just a voluntary exercise, since the health statistics of every employer are published regularly.

All in all, European societies have become more risk-friendly and open to new technologies. The widespread perception is that – when structural change is managed properly – new technologies lead to qualitatively better and safer workplaces. Cloud ‘n Crowd Caring is becoming a way of enhancing one’s own safety and health at work – while at the same time helping others. The density and range of monitoring systems and information-sharing networks are developing at an impressive speed.

## 2030

The early 2030s are characterised by a wide spectrum of standards, attitudes, company cultures and OSH-related practices, backed by a continuous disposition to experimentation and a spread of different “schools of OSH”. Some are more oriented towards fostering worker resilience, others towards enhancing the quality of working environments. Some rely on natural substances and processes, others to new “neuro-chemicals”, nano-medicine, technical enhancements or “cell engineering”. The concrete level of OSH

might thus vary a lot and will be greatly dependent on profession, employer and region, preferred approaches and other circumstances. Also, the non-legally-binding nature of many OSH-related innovations leads to various forms of arbitrariness, characterised by a growing gap between progressive employers with highly innovative and participatory OSH practices, and employers lagging behind the “state of the art” – to put it nicely. The increasing number of unhealthy workplaces and some dramatic scandals have brought the question of legal protection and standards to the top of the OSH agenda again. The level of protection and standards are restored in areas where an all too liberal approach has proven flawed. Nevertheless, while the focus still lies on individual empowerment, more regulatory barriers are being introduced – especially in fields where individuals have little possibility of taking action. Labour inspections are becoming more frequent again.

By the end of the 2030s, the number of unhealthy workplaces has declined significantly and sound OSH minimum standards apply to most workers. Nevertheless, policy-makers and the general public tacitly accept that migrant, low-educated and older workers in precarious living conditions are doing the remaining high-risk jobs. But all in all, for most people OSH risks tend to be much more mental and emotional than physical in nature. In a world of continual and often rapid discontinuities, maybe the most important capability needing to be trained is that of being able to embrace change.

## 2040

In 2040, self-employed workers working on the basis of result-oriented contracts dominate the labour market. There is a huge diversity of working conditions, dependent on individual values, preferences – and the market value of the respective work in combination with the corporate culture of the employer. Working time can be 10 or 60 hours per week. Overall work engagement is significantly higher than 20 years ago. Self-help literature with titles like “Mindfulness at work”, “Zen of success”, “Engage and create”, “99 extraordinary places to work” or “How to be happy no matter what” top the sales

lists. Of course, this is not the world of pure “peace and harmony”. It is a world of choice and self-reliance, which also contains a lot of short-sightedness, ignorance and carelessness. Too many workers are pushing things too far, leading to a burn-out or a deep professional crisis, for many an episode of their working life. Many have coaches to reduce stress and interpersonal conflicts at work. There is a broad variety of cures for calming the “hot-headed Icaruses” on the market – and there are a lot of helping hands. But ultimately, which way to go remains an individual choice. One way or another, most are in search of personal happiness.



**Citations from “contemporary witnesses”  
of the “Self-reliance” scenario\***

“I feel insecure about this. I may be lucky to get a job in a progressive company, where OSH is great and I am involved in planning and executing work. But I may just as well be unlucky, being employed in a grey or bad company with few OSH ambitions. (...) I will do my best together with my colleagues. Wish me luck!”

“Workers are usually involved in OSH. There are impressive innovations. But decisions are often based rather on individual than on social considerations. (...) However, people care for each other.”

“Upgrade your profile, have trust in your networks.”

“People achieve healthy working conditions by being informed. Many companies take the initiative to develop safe and healthy working practices together with their employees. However, unsafe corporate practices still go largely unpunished. There are very little checks by the state.”

“Mainly employees are responsible for their own OSH – and sometimes still need to fight for it. There is little support from national agencies.”

“OSH is every worker’s own responsibility. (...) To keep fit, workers have come together in OSH-specific networks to advise and help organise safe and healthy working conditions.”

“OSH is a very personal affair, with workers being responsible for their own physical and mental health.”

“There is mutual trust and people act responsibly. Talents are addressed and networking is essential.”

\* Excerpts taken from a group exercise during the second scenario workshop, in which the participants summarised their basic impressions of each scenario.

"PRECARIOUS WORK PREVAILS."

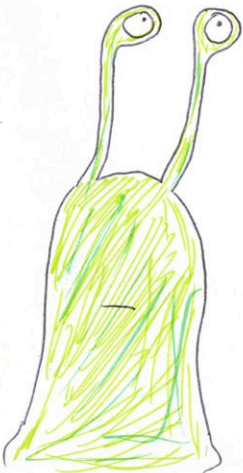


"THIS IS NOT WHAT I EXPECTED  
FOR A WORKING LIFE. MANAGEMENT IS  
BOSSY AND I NEVER KNOW WHEN THEY  
GIVE ME A SACK. AND OVERALL,  
OSH IS NOT TOO GOOD...  
THE GOVERNMENT DOES NOT CARE  
FOR MY HEALTH EITHER."

"MONITORING OF WORK BEHAVIOUR  
IS VERY COMMON."

"SOCIETY IS SHAPED BY COMPETITION.  
AS AN INDIVIDUAL YOU ARE EITHER IN OR OUT."

"INDIVIDUALS FIGHT FOR WORK  
AND THEIR PLACE IN SOCIETY.  
EVERY DAY."



*Ben*



# III.

## Productivity ("Fit for Work!")

### 2020

The competitiveness of the EU economy is under increasing pressure. Ageing societies, little innovation, an eroding infrastructure and an inefficient public sector in many EU regions are the main challenges at the beginning of the 2020s. Nevertheless, compared to the global average, living standards in Europe are still comfortable. But it has become much harder to stay at the top. This is not only true for corporations, but also for individual workers. Peak performance is the benchmark for all. And while most employers acknowledge the importance of OSH, they see few opportunities – due to the tough economic climate – to invest in further prevention measures. While sustainability, wellbeing and “good work” naturally remain long-term goals, short-term results are the precondition for staying in the game. The widespread perception is that every Euro spent by a company on OSH-related measures must pay off – in a not too-distant time. Risk assessment has become first and foremost a cost-benefit exercise.

In this situation, not only proposals for further OSH standards, but also much of the

regulation implemented over the last decades is perceived as inhibiting growth and competitiveness. Furthermore, “regulatory cooperation” with trading partners has often slowed or even prevented improvements in OSH regulation, and demands for new or higher OSH standards are regularly confronted with accusations of protectionism. Socially-oriented governments are accepting lower OSH standards as a “necessary evil” to avoid further job losses and relocations. Almost all EU countries have reduced their budgets for OSH enforcement and labour inspections over the last years. And it is an open secret that certain branches systematically circumvent health-monitoring and preventive measures which are still obligatory by law – at least on paper.

To strengthen market positions, product cycles are becoming shorter, new technologies are introduced quickly and measures to enhance workforce productivity have intensified. New forms of interaction between men and machines are shaping working environments. In many cases, this makes work safer, reducing hazards. But all too often, there is a lack of resources and awareness of how to deal with the new risks emerging from these

technological innovations. It lies in the nature of this turbulent and tough economic environment and fundamental technological changes that slow onset hazards are often overseen. These blind spots are reinforced by a jurisdiction acting on the strict basis of evidence-based, not too ambitious regulations.

In the absence of legal guidelines and requirements, many companies are developing their own corporate OSH policies. The result is a growing diversity of how employers deal with safety and health at work. Many develop detailed instructions and guidelines with the goal of reducing accidents and sick leave. Some even implement comprehensive “healthy living policies” which prohibit unhealthy behaviour and habits – also outside working hours. Most introduce assessment systems that include regular checks of personal scorecards. It is becoming quite normal for workers to have to operate under a strict safety regime. The surveillance of performance at work (as well as personal lifestyle) is becoming omnipresent. Little autonomy combined with high work density have led – as many surveys show – to an increase of work-related frustration, stress and psychosocial diseases in all EU countries.

## 2030

There are also improvements in the field of OSH. In branches where high-qualified workers are rare and sought after, high OSH standards are used as a competitive advantage to attract the “good ones”. For these workers, individualised healthcare plans and special services are commonplace. Workplace wellbeing facilities and access to high-quality health services are thus more and more a status symbol for top performers. Many companies pay for tailor-made fitness programmes, onsite gyms, performance-enhancing implants or even for the egg freezing of their young female high-potentials. However, at the lower end of the value chain, grievances are growing. Low-skilled workers often have to operate under unhealthy and high-risk working conditions. In some European regions, clusters of undocumented immigrants employed in undeclared work and without any rights at all are emerging. And despite inhumane working conditions, public

authorities often tolerate these local shadow economies. Many undocumented workers still believe in the European dream and hope to get a better job soon.

While public policies and the regulatory framework for OSH have a decreasing impact, the corporate world has become the driving force for shaping working standards. In many cases, corporations act like states, setting ethical norms and instituting their own policies and “internal jurisdictions”. It is no coincidence that much management literature is about “new” leadership approaches and that these companions often borrow from the language of war. One exceptionally popular book in these years is: *Commanding heights – How to improve the combat strength of your workforce*. Indeed, management has again become more top-down – often bossy. Most companies fulfil only minimum worker participation standards. Relations between employers and trade unions have become conflict-prone, or even antagonistic. Most company boards regard worker participation as too slow, costly and inefficient to cope with the challenges of running a successful business. As regards OSH, there is a widespread perception that workplace health and safety is first and foremost a question of clear rules and individual compliance.

The 2030s are characterised by a yawning gulf between showmanship and daily reality. Corporations are designing their own labels and claims, like “healthy company” or “safety through excellence”. They have their own rules, health monitoring units and sanction systems. While some are stepping up their investment in OSH-related measures and prevention, the overall development is marked by a lack of awareness and resources. Most preventive services are organised in-house and – in line with management provisions – the enforcement of workers’ compliance is their core task. Any new prevention measure has to be cost-effective. Social dialogue and collective bargaining have lost their relevance. Works councils and other forms of worker participation at company level have been downgraded to communication channels. Management is setting standards and policies, and discontented employees are free to look for another job.



In most companies, employees have to wear sensor-packed badges which collect data about their work performance, on-site movements, activity at their interfaces and so on. Complex algorithms are handling performance evaluations for each individual worker. Most workers have internalised the pressure to perform. Driven by the fear of exclusion, they try to avoid any sign of weakness, preferring to manipulate themselves with pills and devices to meet expectations. Many employers previously feared absenteeism. But “presenteeism” – or going to work despite being sick – has now become endemic and a serious problem in many companies. Employees pretend to be fit and healthy when they need rest, thus exposing themselves and their co-workers to unnecessary risks.

## **2040**

Looking back from 2040, the number of work-related diseases, burn-outs, heart attacks, strokes, abuses, anxiety, depressions and even suicides has increased dramatically over the last two decades. Especially older workers in bad health or suffering from chronic diseases are living on the breadline. For too long, the consequences of deteriorating work environments have been neglected. While many continue to follow the mantra of “I have to work harder”, others no longer want to subordinate their lives to a work ethos that judges human worth purely on the basis of economic productivity. Some are searching for allies. One recent phenomenon is the formation of “secret unions” throughout Europe. Their initial aim is to provide support to the most vulnerable and precarious groups. At first only a few, often those personally affected, engage in these initially despairing endeavours. But with time, more and more join in, thus creating real prospects for change.



Bernard

**Citations from “contemporary witnesses” of the “Productivity” scenario\***

“This is not what I expected from a working life. Management is bossy, and I never know when they’ll give me the sack. And overall, OSH is not too good. I just have to stick to myself and do my best, as the government does not care for my health either.”

“Big enterprises do their best to attract and retain the high potentials. Low-skilled workers are in trouble. There is very little support from the state. Real and overall innovations in the field of OSH are limited. Those who can afford it use the new technologies.”

“Employers control governments to a great extent, also in OSH-related issues. The degree of attention paid to OSH depends on the emphasis that employers put on it. (...) In some companies, OSH standards are extremely high and measures and behaviour are highly effective. At the same time, in other companies OSH conditions are very poor. Employers use OSH standards as a competitive advantage to attract labour.”

“Companies that voluntarily adopt best practices achieve healthy workplaces. There are few sanctions for bad practices. The health of the workforce is monitored in and outside the workplace. Precarious work prevails.”

“There is a practice of ‘blaming the victim’, linked to an individual’s technological transparency. Work behaviour monitoring and bio-monitoring are commonplace.”

“Society is shaped by high competition. As an individual, you are either in or out. Management systems focus on learning from the past, monitoring individuals statistically.”

“Individuals fight for work and their place in society. Every day.”

\* Excerpts taken from a group exercise during the second scenario workshop, in which the participants summarised their basic impressions of each scenario.

"YOUR SAFETY IS ENSURED BY LAW".

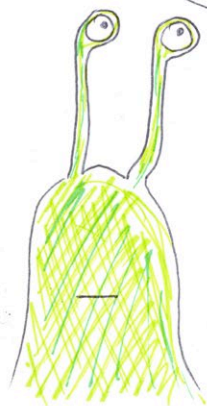


"HEALTH IS SEEN AS AN IMPORTANT VALUE AND THERE IS A STRONG EMPHASIS ON PREVENTION".

"THERE IS STRONG CONTROL BY THE GOVERNMENT. MANY RULES... BUT OFTEN THEY ARE STATIC AND NOT VERY EFFECTIVE. THERE IS LITTLE ROOM FOR INNOVATIONS IN OSH."

"HEALTHY WORKPLACES ARE ACHIEVED BY CORPORATE COMPLIANCE WITH DENSE REGULATION. COMPANIES ARE PRESSING THEIR WORKFORCE TO FOLLOW RULES".

"MANY WORKERS FEEL APATHETIC ABOUT THE SYSTEM."



Schmid

## IV.

# Protection

### 2020

The early 2020s are characterised by a cascade of multiple crises. Heightening economic, environmental and social problems have contributed to elections gains of far-left and right-wing alliances, putting established parties under pressure. People are feeling unsettled and exhausted. Experience of this cascading turbulence is leading to a change of perspectives. What most people want is a minimum of security for themselves and their families. Effective leadership and clear rules for the common good are what they are expecting from their governments. Stability is seen as more important than individual freedoms and choices. As a result, politics are becoming increasingly authoritative.

For various reasons, health policies are high on the agenda in these years. A main reason is the shrinking quality of public healthcare systems, seen as a key indicator of growing social divides. But public healthcare has not only worsened; health expenditure is ready to balloon out of control. One key driver for rising costs is the aging population and the associated rise in chronic diseases. Moreover, work-related health issues

are moving into the focus of public demand, with the employability of older workers a core concern. To safeguard social security and pension systems, it is regarded as necessary to have a large share of the elderly still employed. Furthermore, unhealthy or high-risk working conditions are no longer tolerated, as ultimately the associated costs have to be borne by society as a whole. High OSH standards have become the order of the day. As people are the most important resource of the European economy, the widely-accepted equation is “Health = Wealth”.

Corporations are also interested in economic stability, the sustainable management of human capital and good OSH standards. Together with unions, they are taking the initiative and becoming a driving force for putting OSH issues on the agenda and addressing them adequately. Employer and employee organisations are working closely together and in unison with national and the EU governments to enhance working conditions. Member states are making maximum use of EU funds to improve their national OSH policies. Many employers are introducing special health programmes to foster the employability of older and disabled workers. Company

programmes for other OSH-related measures are also receiving more subsidies from the state. Funding priorities are focused on prevention, empowerment and early action to reduce work-related injuries or chronic diseases, costly therapies and lost days of work. Other initiatives, e.g. the expansion of child-care facilities or gender-related OSH measures, are oriented towards increase female employment. Unions and employer organisations are participating in and contributing their expertise to law-making, significantly influencing new legislative initiatives. Tripartite collaboration between governments, business and worker representatives has thus become an important instrument for coordination and mutual information.

Governments and the EU institutions have introduced strict thresholds for environmental pollution and exposure to hazardous substances and radiation. In all EU countries, comprehensive notification and compensation of occupational diseases is becoming obligatory. Employers are accepting and often even supporting these political measures, as they want to avoid competition in the field of OSH. Many companies are further strengthening their compliance departments and measures. They are also pushing for EU trade policies committing importers of goods and services to high working standards. Many EU trading partners are complaining about a new “wave of protectionism” enforced by EU member states and the European Commission. OSH-related arguments have thus become prominent conflict issues in international trade.

To safeguard compliance with rules and enabled by new technologies, comprehensive monitoring systems are emerging. By and by, a Europe-wide work-related database, the “WE”, has been established, collecting and analysing information on individual workers’ exposure throughout their working lives. Risk assessment norms and procedures in companies are becoming harmonised. Government agencies are setting and developing risk assessment standards, relying on data, empirical research and algorithms. The frequency of labour inspections has increased significantly. In most cases, on-site checks are no longer necessary, as much data and information are monitored automatically

– in real-time and around-the-clock. This in turn enables labour inspectorates to carry out many more inspections than in the past. Increasing reporting obligations and thus documentation work for all OSH players are demanding.

Employers, and specifically management, are held accountable for meeting all standards. To implement the comprehensive requirements and avoid possible liability claims, managers are in many respects passing on their responsibilities by installing tough regimes for their employees. It is thus not only the political arena which is becoming more authoritative – the same applies to the organisation of work within companies. Real-time checklists (and real-time notifications in cases of non-compliance) support workers in avoiding errors and thus risks. As management in most companies has become more hierarchical and worker involvement and consultation have decreased, national authorities are in many respects replacing the role of unions, works councils and other employee representatives in defining and defending workers’ rights. Workers representatives are meanwhile acting first and foremost as “watchdogs”, preventing employers from trying to undermine standards.

## 2030

At the beginning of the 2030s, many gradual developments have led to considerable changes to everyday working life. Due to new legislation addressing dismissal protection, job security has improved. Atypical work contracts have become much less common. Special provisions ensure that older employees and people with chronic diseases are not over-exerted and remain capable of keeping up with their tasks. Strict regulations enforce legal maximum working time, and break times are respected. The use of robots and “power-clothes” for heavy-duty work has become obligatory to prevent unhealthy physical work. Special office chairs ensure that work is done in an ergonomically correct posture. “Painfulness Accounts” have been introduced across the EU, provide earlier retirement or occupational retraining for workers in jobs with physical constraints or involving night work or exposure to hazards.

Guidelines, rules of conduct and standards are playing a greater role and take more time. If employees do not comply with company rules, they are put in charge of “peeling potatoes”, i.e. they work with even less autonomy and under greater management control. Many former risks have been – as far as possible – eliminated. Workplaces have become cleaner and safer. For example, back troubles due to hard physical work or bad ergonomics have almost disappeared. A growing number of public-private partnerships have been initiated and updated, established with the goal of developing and implementing new technologies safely. Most workers appreciate that governments are acting to make their working conditions healthier. Nevertheless, studies show that in many branches and occupational groups stress symptoms are on the rise.

community values, but also suspicion that these rules, constraints and commands are simply going too far ...

## **2040**

In 2040, most workers have a personal “safety rob”, a robot that accompanies them wherever they go, collecting data and giving advice. When a problem is detected, preventive or corrective measures follow instantly. For more than two decades, the annual number of work-related accidents and diseases has been declining steadily. Of course, there are still high-risk and unhealthy workplaces, but they have become the exception. For most workers in Europe the situation is characterised by safe working environments. Health is valued highly. A strong state, rules-based workflows and the use of new technologies have contributed to this new context in which many former risks and hazards have become history.

But for many, ever-present and dense regulation and surveillance have also weakened their sense of responsibility. They don’t engage in their work or their communities, because they have the impression that almost everything is already set in stone. “Everything is organised for you” is the promise – but increasingly also the problem. More and more workers suffer from increasing pressure, rigid, inflexible procedures and little autonomy at their workplace. Thus in 2040, we witness not only widespread contentment with stable living conditions and strong



**Citations from “contemporary witnesses” of the “Protection” scenario\***

“Businesses take the initiative in putting OSH issues on the agenda and addressing them adequately. They work closely with national and EU government bodies to address OSH issues within the EU. Health is seen as an important value throughout society, and there is a major emphasis on prevention.”

“My employer is so old-fashioned; giving orders and controlling us workers all day long. In my view the company should care much more for our health and safety.”

“There is tight control by the government. Many rules are there to benefit the workers – but often they are static and not very effective. There is little room for OSH innovations.”

“Your safety is ensured by law.”

“Healthy workplaces are achieved by corporate compliance with dense regulation. Companies are pressuring their workforce to follow many rules. There are manifold directives from the state as well as from management. Many feel overburdened by too much information.”

“Employers are held accountable for OSH by law, while employees have little possibilities to control them. They must rely on the labour inspectorate.”

“There is protection by the state. But little innovation.”

“Many workers feel apathy towards the system.”

\* Excerpts taken from a group exercise during the second scenario workshop, in which the participants summarised their basic impressions of each scenario.





<b>Key values</b>	Sustainability, inclusion	Autonomy, meaning
<b>Driving forces</b>	Co-operation	Individualisation; personal relations
<b>Shaping players</b>	Policymakers, stakeholders, citizens	Networking individuals; activists
<b>Basic conflicts and dilemmas</b>	Participatory approaches need much time and resources; How to tackle conflicting goals and views about the “common good”?	Too many choices and responsibilities might be overwhelming; What about workers with weak negotiation power?
<b>Regulatory environment</b>	Broad and innovative agenda; e.g., regarding an aging workforce, gender-related issues, green jobs, psychosocial risks, strong focus on prevention; early anticipation of new risks, etc.; increasing convergence in the EU	Safeguarding basic standards; responsiveness to grievances; focus on empowerment, incentives, transparency and information-sharing; increasing regulatory heterogeneity in the EU
<b>Worker participation</b>	High; strong representation and collective bargaining	High; strong individual involvement
<b>Financial resources</b>	Increasing public and private resources	Increasing private resources; public seed grants; special measures for vulnerable groups
<b>Key innovations</b>	Holistic concept of wellbeing; participatory risk assessment and decision-making; social innovations for healthy working environments	Personalisation of risk profiles and measures; less hierarchical work organisation – more autonomy; Cloud ‘n Crowd Caring platforms
<b>Risk assessment</b>	Precautionary approach	Mindfulness approach

**Scenario III.**  
**Productivity**

**Scenario IV.**  
**Protection**

Efficiency, growth

Stability, security

Competition

Crises and instabilities

Corporate management

Governments, state authorities  
(and corporate management)

A dominant focus on output and productivity might hurt the dignity of workers;  
How can we value health in economic terms?

How can we discourage employers from shifting responsibilities for following strict rules onto workers, which causes stress, without discouraging accountability and commitment?

Deregulation and erosion of OSH standards and legislation; strong corporate policies; weak national governments and the EU and state authorities

Strict regulation, monitoring and enforcement of OSH standards; zero-accident policy; focus on national measures and regulation, EU-wide harmonisation only in fields of common interest

Low; neither strong collective nor individual involvement

Low; expertise and watchdog function of worker representatives

Declining public resources; employers focus on cost-effective measures

Limited public resources; enforced private investments

Technological innovations and company programmes to enhance the fitness and performance of workers

Comprehensive monitoring, control and protection mechanisms; "Safety robots"

Cost-benefit analyses

Compliance approach



# **The scenarios**

## **Long versions**



# I.

# Wellbeing

“Occupational safety and health are vital to the dignity of work.” **Juan Somavia**

“Let us stand on each other’s shoulders, not each other’s toes.” **Dennis Allison**

## 2020

There is a growing perception that the economisation of ever more spheres of life and the excessive reliance on innovation, competition and market forces have contributed to social upheavals, economic imbalances and increasing environmental problems in Europe. After decades of lip service, the paradigm of sustainable development is gaining true appeal. Respect for environmental boundaries and limits, good public infrastructure and a stable common good, as well as social cohesion and a decent standard of living for everyone, are seen by many as a precondition for safeguarding future viability and good prospects for the generations to come. Other drivers of these developments are the **(changing) needs and values of an ageing society**.

Fortunately, this shift toward sustainable development does not come out of the blue, as a new consciousness has been crystallising over the last few decades. Millions of committed individuals, thousands of politicians, social partner organisations, environmental and social NGOs and international and local initiatives have been confronting and challenging old paradigms and convictions.

Countless experiments of value creation and building the common good without doing business in the conventional sense have been undertaken. Even if many of these pilot schemes and new concepts have been dubious and are often more hype than real gamechangers, together they have prepared the ground for genuine sustainability and contributed to a momentum that has transformed sustainability into more than just a word. And the 2020s are setting the stage for a breath-taking paradigm shift.

Of course, in many areas the shift towards an eco-social economy is much harder than expected, and often **the devil is in the details**. Many initiatives first failed, because of resistance from those who would have been negatively affected. It becomes clear that both an appropriate legislative framework and participation of all stakeholders are needed. This experience is leading to a new balance between public and private players and more interactions between them in both a collective and individual sense.

The ageing workforce and longer working lives go hand in hand with a stronger focus on health-related issues in the adaptation of working environments. It simply does not fit



together to increase the statutory retirement age, but not to address the fact that a large proportion of the workforce doubts they will be capable of doing their current work at or beyond the age of 60. Work-related health issues have thus become, step by step, a key issue in public debates. And it is becoming clear that the concept of “sustainable employability” goes far beyond the conventional semantics of reducing work-related accidents and diseases. A more comprehensive approach of wellbeing is needed.

One result is that general **public health and occupational health are increasingly seen as two sides of the same coin**. In practice, they are becoming more integrated. For example, employee on-site health services are catering for both work-related and general health issues. Conversely, public healthcare institutions are supporting the employability of older workers. Examples of such integration are the challenges associated with the rising number of chronic diseases, psychosocial risks, as well as increasing heat stress due to climate change – all which necessitate combined public and occupational health strategies and measures.

With the growing demand for healthy working conditions, election programmes throughout Europe – to keep up with the times – are putting greater emphasis on enhancing wellbeing and improving working conditions. Trade unions and worker representatives are pushing for a stronger influence in shaping healthy working environments and improving workforce employability, essentially demanding an appropriate, level playing field. After years of stagnation in the field of OSH in the first and second decades, **common regulation in the European Union is set to regain influence and strength** in the 2020s. EU policymakers have realised that this policy area offers huge possibilities for raising their profile. To enhance workplace quality and reduce unfair competition and the unnecessary costs of fragmented norms, the aim is to develop a harmonised common framework or at least converging OSH standards in the EU. Based on many consultations and stakeholder processes, EU working standards in general and OSH standards in particular are gradually being extended to and implemented for all kinds

of workers – no matter whether they are permanent workers, temporary staff, migrant workers or self-employed. The underlying premise is that every worker has the right to the same level of protection, regardless of the form of contract. Furthermore, all OSH measures have to be regularly reported, as do all kinds of accidents and diseases possibly related to the activities of the respective company. **The rising degree of transparency, possible through the use of new monitoring technologies and digitalisation, is boosting compliance with environmental and OSH standards**. Labour inspectorates are further developing their cross-border cooperation. The development is also marked by an increase of public funding to enhance the quality of working environments, e.g. through more state-financed research projects, increased financial support for OSH-related NGOs, continuous skill-upgrade measures for labour inspectors, more money for prevention services and external expertise, investment in education and the empowerment of workers and their representatives. The role of collective bargaining and social dialogue is strengthened. Trade unions are gradually expanding their activities. Worker representatives are involved in the risk assessment of new technologies and substances. And they appoint and support regional safety representatives. As an EU standard, trade unions meanwhile have comprehensive rights to initiate legal proceedings and lawsuits. The growing complexity of health-related issues – often characterised by work- and non-work-related interactions – is one reason for the deepening of liaisons between trade unions, environmental NGOs and local action groups, helping them to successively broaden their scope of action field beyond company sites.

Many interventions and policy measures target the most vulnerable and disadvantaged groups with the goal of decreasing health inequalities. Special return-to-work programmes reduce the duration of time off work and support worker re-integration after a serious injury or long-term sick leave. Over time, both at EU level and within most member states, **multi-stakeholder networks for sustainable, preventive and inclusive OSH policies are emerging**,

involving state representatives, human resource managers, employee organisations, works councils, OSH experts, preventive services and insurance companies.

Occupational psychology has become an integral part of OSH legislation in the EU. Mental wellbeing is high on stakeholder agendas and part of regular personal health checks, now routine in many companies. There is a focus on organisational culture: harassment and bullying, intolerance of diversity and unhealthy behaviour are being tackled with appropriate measures. Another shift regards a **growing awareness of gender-related aspects of health and safety at work**. A gender impact assessment is now obligatory for every new legislative initiative in the field of OSH, as are special monitoring provisions regarding the implementation of gender-related measures within companies. With the growing number of “green jobs”, new challenges for OSH are emerging. Specifically, waste management and urban mining, new recycling technologies and processes, “advanced materials”, and applications of modern biotechnology introduce occupational exposure to biological agents, chemicals and new materials, generating new health risks. Also, in the wider field of low-carbon technologies, new risk profiles have to be tackled. Thus, the greening of the economy goes hand in hand with new challenges for OSH.

The trend towards more centralised EU regulations has triggered more complementary and adjusting initiatives at branch or company level. Most employers are realising that a highly committed and motivated workforce cannot be achieved by management tools based on “command and control” approaches. Work-to-rule employees are hardly conducive to a prospering business model. Besides, permanent surveillance and using coercion to get people to work are costly. As a consequence, development is characterised by a more coherent framework as well as more local learning processes and solutions. In this context, many corporations are increasing the involvement of worker representatives in OSH strategy-building and decision-making. For example, safety representatives are more regularly involved in the alignment and wording of their company’s OSH policy. Flexible agreements

should foster workplace democracy, including opportunities for individuals to shape their working conditions according to their personal preferences.

The price of finding common ground in a phase of transition – and consequently concrete common rules and actions on how to shape change – is in some cases a restriction of individual choice. Sustainability has in many aspects become not only an appeal but an obligation. Many habits and organisational procedures have to be adjusted in these years. **Another challenge, coming along with extensive participation and deliberative democracy, lies in the consequence that such processes are time-consuming and costly.** Especially where rapid change requires quick reactions, this is leading to problems. Nevertheless, the common perception is, that “shooting from the hip” normally does not lead to sound results. On the contrary, deceleration is more and more seen as an advantage, especially regarding the use of new technologies. There is a growing sensibility to risks related to new technologies, digitalization, processes and substances. **The precautionary approach is seen as the appropriate frame of reference**, as it ensures that uncertainties will be taken into account when considering the potential consequences of new technologies. Their introduction is thus always accompanied by extensive stakeholder dialogue and risk assessment. In a case of reasonable doubt, moratoriums allowing time for further research and evaluation are the norm. Nevertheless, European societies are by no means technophobic, with technological innovation seen as a sine qua non for transforming the economy. The main goal is no longer to boost productivity through technological innovation but to create a sustainable economy with better and safer workplaces. During the development phase of new technologies and products, the concept of “prevention through design” (PtD) must be applied. Just as automated processes helped eliminate most night shifts in the past (which, of course, initially produced problems related to the resultant loss of jobs), working with hazardous substances or in unhealthy environments is decreasing in many fields due to technological innovations.

As part of building a “Social Europe” in the early 2030s, social security nets in most member states have been strengthened in one form or another. Greater security and better opportunities to participate in societal daily life have thus been achieved. Additionally, special support measures for the most vulnerable groups, for example in the fields of early childcare, education and training, have been further developed. Due to increased political integration in many policy areas, regional disparities in the EU are also starting to narrow. As a result, precarious working conditions in the EU have declined visibly. At the same time, **recognition of non-market work is increasing**. Childrearing, caring for elderly family members and community work are more valued. Especially for the latter, financial resources from public funds have increased significantly over the years.

More and more initiatives in support of wellbeing at work are being explored. For example, long commutes are seen as a health risk and are put on the OSH agenda, as are exposure to permanent low-level noise and the mainstreaming of a “healthy workplace design”. There is a considerable shift from attempts to increase efficiency in terms of time management towards an “energy management” taking account of natural productivity rhythms. In many companies, the working day is being structured in new ways, for example, scheduling demanding, cognitive or creative tasks in the morning and message-answering and routine tasks in the afternoon. The possibility to switch between seated and standing desks and the availability of nap rooms are widespread. Progressive companies are experimenting with workplaces that energise employees when they are tired and calm them when they are stressed or angry. Another trend is the deceleration of work, for example, through the implementation of 90-minute work cycles, more time buffers and better workload monitoring. **Average weekly working time has dropped to around 30 hours**, giving employees more time for other tasks, such as housework, childcare and eldercare.

In cases where OSH-related measures and the “architecture of wellbeing” require

major investment, many companies initially had a bumpy ride to maintain competitiveness. Being a “front-runner” in the field of OSH can be a hard job. But in the long-run, these investments pay off as more and more employers start following this path of change –also in other parts of the world. Many technological innovations for healthier working environments have become a powerful economic driver and export hits for European producers. European societies were naturally not alone in longing for more sustainable, decent and inclusive lives. The context for the global changes that have taken place on the “blue marble” over the last few decades were shaped by manifold global agreements between global institutions with the shared aim of balancing the needs of eight billion people on a planet with limited resources. Changing awareness was essentially driven by both, necessity and insight.

**Empowering education in all its forms and at all levels also played an important role.** Environmental awareness and health awareness are ultimately centred on the same issue but on different scales. It took a long time, but approaches to maintaining a healthy environment and healthy living have found their way into every curriculum. Meanwhile, mainstreaming health and safety issues already starts in the kindergarten. The educational ideal is the harmonious development of physical, emotional, and intellectual potential. Another basic premise is that health and wellbeing always have a strong social dimension. Social competences and community building are seen as important learning fields. Particular attention is paid to children with special needs. In participatory mentoring programmes, young children are encouraged to take over responsibility for weaker peers. A key purpose of the educational design is to teach young people to “take care of yourself, your community and your environment”. Of course, learning does not stop upon entering the labour market. Despite the right to regular further training and upskilling, a broad range of health-related courses are also available to practically everyone. Regular training possibilities are normally supported by the employer, with better-informed employees actively participating in creating healthy working conditions.



Bernard

In retrospect, we can say that the overall development of the last few decades has been characterised by a growth of relatively high-quality workplaces – and a strong decline in low-quality jobs. Workers have numerous opportunities for participating in shaping their working environments. **Collective and individual participation are encouraged.** Labour relations have generally become more cooperative and partnership-based. Diverging interests are tackled through a fair legal framework, strong social dialogue and institutionalised forms of compromise at an appropriate level. To ensure high OSH standards – also in times of profound changes –, regular worker consultations to identify prevention potential are the norm in the majority of EU companies. In 2035, more than one third of the EU workforce is of foreign descent. Many companies have introduced measures to cope with the growing diversity of their workforce with a view to integrating and making use of different cultural backgrounds and experiences. A by-product of these efforts is that, in many respects, a more comprehensive understanding of health and wellbeing is emerging in the field of OSH as well.

In 2040, working conditions in Europe are much healthier than they were twenty years ago. Society and politics have become considerably more inclusive. Even if some commentators sometimes complain about “sustainability-fetishism” or an “ever-present healthism” – the predominant feeling is that we have in many respects accomplished a great social transformation.



## II.

# Self-reliance

“The future may belong less to firms organized as hierarchies than to participants in open, networked platforms.” Kim Taipale

“The master in the art of living makes little distinction between work and play” Lawrence P. Jacks

### 2020

In response to the growing external complexity of market environments and value chains, large corporations and companies have increased their internal complexity. While parts of organizations remain more hierarchical, others have become highly autonomous, dynamic, open and changing. Company boundaries are becoming more fluid and permeable. By and by, former hierarchical organisations are changing into digitised and networked platforms. Innovations in the field of ICT have enabled easy and efficient interaction among multiple players, while transaction costs within such networks have been decreasing. Many of the big players are too inflexible and ponderous to cope with the imperatives of a changing economy. Management boards have often trusted their well-tried business models – always delivering a comfortable cash flow – too long. Some spectacular corporate bankruptcies have been the consequence, while the number of small and micro-sized businesses, as well as self-employment, have been growing sharply.

There has also been a considerable shift in what motivates people to work. For more and

more workers, maximising income and job security are no longer the main criteria. They want work to be meaningful and stimulating. Due to the relatively stable economic situation and labour market, people have become more experimental, audacious, playful and active in searching for new ideas and opportunities. They regard their work as an integral part of their identity. There is widespread aversion towards authoritative management styles. Many prefer to work in improvisational, self-organized working environments.

**Wealth in time, a high degree of autonomy in organising work and a good work climate are increasingly important criteria.** Healthy and energising working conditions are becoming an important factor for attracting sought-after team members. While some branches and industries are unable to find qualified employees because their products or services are regarded as bad or senseless, others are becoming increasingly popular. For many, good work must be meaningful and meet high ethical standards. While many of these trends have originated and grown in the service and knowledge economy, they are spreading, changing working conditions in other sectors and branches as well.

All in all, work organisation is becoming much more result-oriented. For many employers, the motto is: “Everything is allowed as long as the outcomes are okay”. Most workers are being given more freedom and room to manoeuvre – in part due to trends toward smaller business entities. But they also feel that their responsibility for team and/or project success is increasing too. The trend towards being paid for results is leading to increasing inequality in terms of income – but not necessarily in terms of life satisfaction. Individual choices and responsibilities are leading to very heterogeneous solutions, in turn resulting in an increasing diversification of working conditions. Especially for contractors, but also for permanent employees, **workplace health has in many respects become a matter of choice and preference.** Employees who frequently work from home are paid a lump sum for equipment, and contractors get a general budget for the work they deliver. Both must individually decide how much they spend on an ergonomic chair or an eye-friendly interface. Many (literally) become short-sighted through such freedom of choice. People feel and enjoy that they have a stronger say on how their work is organised. They regard this trend as a valid response to the growing diversity of life circumstances and preferences. It is simply a matter of: “Different needs require individual solutions”. Another trigger of awareness and action is the increasing occurrence of allergies, intolerances and chronic diseases, i.e. risk profiles have become much more diverse, and individual awareness for specific adjustments more important.

In the first half of the 2020s, the “internet of things”, automation and robots have eliminated a lot of jobs – not only physical work, but also routine cognitive jobs, like corporate finance controlling and bookkeeping, retail management, public transport or logistics. Work has become less routine and more exception-based. And you have to add a personal touch to what you do, how you do it, and how you relate to colleagues and customers – no matter in which branch you are working. **Another trend is the increasing ‘gamification’ of work in general,** and in the field of OSH in particular. The premise is: If you want people to be aware and committed,

make their tasks and obligations a game. So many employers do so. More and more companies are learning to “game the system” to inspire safe and healthy behaviour among employees and to gain better safety records. Earning points for team-based performance, company-wide “risk-awareness quests” and awards are triggering motivation, excitement, fun and are most importantly facilitating an increased focus on health and safety issues. The overall goal is to implement positive feedback loops enhancing an awareness culture at work.

Naturally, new OSH risks emerge when employees are allowed to work “their own way”. For example, the widespread practice of “bring your own device” and the increase of working from “wherever you want” are also leading to new challenges regarding ergonomic factors, exposure to unhealthy environments, workload and breaks, and so on. The higher the degree of self-organisation, the more difficult it is to monitor and prevent potential risks. In many respects, the “lone fighter phenomenon” is thus creating new health problems. One of the less serious but characteristic issues has been increasing “computer related anger” (CRA) due to the lack of serviced computer systems and professional IT support formerly available in most companies. For many people, it is just too demanding to be responsible for so many aspects of their daily work life – too much information, too many choices. The practice of delegating these issues to coaches and service providers is increasing. Furthermore, working by oneself often leads to a decrease in social contacts and interactions. **People try to compensate by creating professional networks** or intensifying connections with their personal networks outside working hours. Thus, a broad range of informal networking activities is growing. Web communities are emerging around specific diseases, health-related risks and prevention and treatment methods. In their personal – often values-based – networks, more and more people acquire a sense of community support for work-related problems, a sense of belonging and security, as well as the tools for their career development and further education. Manifold platforms have emerged, often initiated and financially supported by public



authorities. These platforms are open for all to contribute. Special consultancies aimed at keeping individuals agile and healthy are well-established on the market. For those who can't afford professional help, voluntary mentor – and motivator – initiatives provide free support.

Nevertheless, compared with other regions of the global economy, OSH legislation in the EU still ensures relatively sound minimum standards to avoid exploitation and unhealthy practices. But initiatives for new legislation have become seldom. A general trend, political initiatives in the field of OSH have become more oriented towards soft law, good practices and empowerment programmes than intensifying legal standards. The “nudge theory” and other behavioural approaches are very popular, and the widespread conviction is that some purposeful nudges in the “right direction” can change much more than a bunch of new laws. Also, trade unions and employer organisations are shrinking both in terms of membership and influence. **Collective bargaining still plays an important role in just a few industries and branches.** Instead of binding agreements or standards and regulations, more attention is being paid to enhancing information flows and increasing transparency, to providing incentives and supporting research. Positive sanctions, like reduced social security contributions, trust labels and awards are preferred to rigid rules and punishments. Labour inspectors collect data about company performance and promote good practices. Broad “residual OSH competencies” are localized, pushed down to the company level and contracting parties. The mantra is: “Avoid red tape!” Most policymakers, employers and employees share the perspective: “As long as we are aware of the workplace risks, regulation is not so important.” Only some have increasing doubts about whether this is always the best approach.

Due to the lack of improvements based on formalised rights and standards, individual means of involvement have to compensate for a lack of legislative action, representative bodies and collective bargaining. Workers are becoming active managers, firstly of their own health and wellbeing, but increasingly also of their work situation and their colleagues' needs. Alongside management's

risk assessment and prevention strategies, individual self-assessments are becoming an integral part of dealing with risks in most companies. Permanent employees and co-workers are encouraged to regularly report unsolved problems and potential for better prevention. These reports are then integrated into the OSH strategy as well as into personal target agreements or the next service contract, assigned to the realm of a worker's individual fields of action. Formerly of great significance, shop agreements between works councils and management are meanwhile of very little relevance.

Very unhealthy working environments naturally continue to exist in some companies or branches. But whistleblowers play an increasingly important corrective role in fighting unsound practices in the field of OSH. Grievances normally do not remain undetected for long. It is very easy to become a social activist and make information about bad company behaviour publicly available. Most employers know that a bad reputation can threaten their existence. Eradicating work-related hazards and diseases is no longer just a private, voluntary exercise, since the health statistics of every employer are regularly published. Furthermore, to ensure that everyone affected by unhealthy working conditions is able to go to court, the state normally bears the costs associated with such lawsuits.

**Technological change is another key driver of changes in the field of OSH.** All in all, European societies have become more risk tolerant and open to technological innovations. A precondition for accepting risks associated with new technologies or substances is that there is a clear assignment of responsibility for any damage resulting from their use and production. The widespread perception is that – when structural change is managed properly – technological innovations lead to qualitatively better and safer workplaces.

Avant-garde “self-trackers” are connecting their data in sophisticated risk-evaluating algorithms to share information and explore larger patterns and work-related risks with others. Cloud ‘n Crowd Caring is becoming a way of enhancing one's own security and health at work – and at the same time helping others. Furthermore, most company

management personnel are making use of the ever-growing technological possibilities and increasing the density and range of their monitoring systems. Of course, there was initially great reluctance – a lot of dialogue, adjustments and securing of “no-go areas” of data collection were necessary. It has become apparent that there is more trust when people know how a system will monitor them and which data will be collected for what purpose.

More and more work is becoming supported by wearable intelligence and augmented reality. Self-tracking applications help employees to monitor their physical resources to avoid exhaustion and determine when a longer rest is needed. These devices are measuring, for example, heart rate variability, blood pressure, blood sugar and sleep patterns. In particular, they track physical (and increasingly also mental and emotional) parameters over long periods of time, making them important aids for shaping appropriate and timely interventions. Technology also helps reveal what was formerly not visible. Context-aware notifications via “augmented reality glasses” (ARG) are becoming widespread for many tasks and professions. But, as is often the case, yesterday’s solution creates today’s problems – an increasing number of accidents and injuries relate to distraction caused by ARGs, and this has become a tough challenge.

## 2030

A lot of studies conducted around 2030 are proving that over the last decade some regions have significantly higher OSH standards than others, depending on the respective state of the economy and labour market situation. Similar disparities can be observed across different branches and companies. **There is a wide spectrum of standards, attitudes, company cultures and OSH-related practices.** This development of variant approaches is facilitated by a continuous disposition to experimentation and the spread of different “schools of OSH”. Some are oriented towards fostering worker resilience, while others focus on enhancing the quality of working environments. Some employers rely on natural substances and processes, while others use new “neuro-chemicals”,

nano-medicine, technical enhancements or cell engineering. The concrete level of OSH might therefore vary widely, being greatly dependent on profession, employer and region, preferred approaches and other circumstances. The availability of ever more potent “performance drugs” and technical means for body enhancement present further potential for growing divides: Many embrace them, while others reject them. As many workers are unable or unwilling to keep pace with the “creative imperative” or work in areas where still nothing more than “simple tasks” are required, **social inequality has increased significantly.** Similarly, the non-legally-binding nature of many OSH-related innovations has led to various forms of arbitrariness. Such intensifying inequalities are facilitated by a growing gap between progressive employers with highly innovative and participatory OSH practices and employers lagging far behind the “state of the art” – to put it nicely. In the 2030s, occupational inequalities in health status, life expectancy and disability-free years of life among workers have thus widened in almost all EU countries. From a broader perspective, general social inequality is rising significantly. Provisions for old age, illness and unemployment have in many cases become a private issue, and a growing section of the population simply cannot afford such protections.

Increasing numbers of grievances and some huge scandals have put the question of legal protection and standards on top of the OSH agenda again. How can we support workers with weak negotiation power and high-risk working environments? How can we preserve social cohesion in a highly individualised society? It has become clear that action counterbalancing the most important upheavals is needed. Of course, developing and promoting safe and healthy workplaces is a continuous learning process, and there were many debates on what level of state intervention was necessary to avoid social hardships and let all workers participate in OSH progress. The level of protection and standards have since been restored in areas where an excessively liberal approach has proved to be detrimental. While the focus lies on individual empowerment, more regulatory barriers have been introduced – especially in

fields where individuals have few options and opportunities for action. Labour inspections and enforcement measures are again becoming more frequent. Public policies have been restructured and “upgraded”, while numbers of private initiatives are growing, as are their fields of application. Because it is expected of them and because it cultivates worker loyalty and engagement, an increasing number of companies have become actively engaged in a broad variety of social and cultural projects, such as “urban wellbeing hubs”, learning-labs, healthcare services and soup kitchens in social hotspots, the funding of local community projects, street art festivals, and grants for young authors. Many people are personally committed to social causes. More and more people no longer want to wait for governments and public authorities to produce solutions, instead taking the initiative to change their personal environments.

For the majority of the working population, physical work-related hazards have more or less become history by the end of the 2030s. Of course, there are still some companies and branches where workers remain exposed to various kinds of serious physical risks. Policymakers and the general public tacitly accept that migrant, low-educated and older workers in precarious living conditions are doing the remaining dirty and high-risk jobs. But all in all, **for most workers, OSH risks tend to be much more mental and emotional than physical in nature.** OSH concerns thus focus on psychosocial-related problems and their causes. Despite being a prominent agenda item for decades and confirmed as a relevant issue by stacks of research, psychosocial wellbeing at work was too long treated in practice as a soft factor, as a “fringe benefit”. The real and very high cost of psychologically unhealthy working environments was all too often ignored in daily practice. One reason for this neglect was that taking the issue seriously would have meant very profound changes, starting with workplace design and work organisation and – probably most challenging – extending to the common paradigms of high flexibility and continuously increasing turnover.

In a world of continual and often rapid discontinuities, maybe the most important “equipment” is to develop attitudes allowing

you to embrace change. The content and methods of school curricula have changed considerably. Even in early education, children are trained in decision-making skills, with a strong emphasis put on resilience and mental strength to cope with uncertainties and surprises. A huge number of toolkits and play resources are available in the cloud, designed to strengthen capabilities to explore, develop positive thinking and good mental health.

Statistically, people change their occupational area five to six times in their working lives. It is quite common for 60-year-olds to go back to university to prepare for “doing something totally different”. Continuously developing one’s competencies and learning from a personal network of peers and mentors or through other means of informal learning have become very common. But workforce readiness is not only about professional skills in a narrow sense. Physical, emotional, mental and spiritual health must be maintained and developed throughout one’s whole life. Crowd caring and information sharing, coaches and many different “life schools” support individuals in fully realising their potential.

Over the last decades, **awareness of mindfulness at work and its capacity to contribute to overall wellbeing has grown.** However, only since spiritual energy levels have become reliably measurable has mindfulness at work become a mainstream phenomenon, and, for many, a working day now involves taking several breaks to rest. “Grounding exercises” are quite common as ways to start a meeting with colleagues. Individually adjustable “mindfulness-bells” serve as reminders not to forget to regularly exercise, rest and drink. Many workers regularly post their current spiritual energy levels and how they achieved them.

## 2040

Self-employed workers, coming from different countries and fulfilling result-oriented contracts, dominate the labour market in 2040. While some find their working conditions over-demanding, the majority are content with their work and have a strong say in how their working days are organised. Fixed

working times or locations have become rare, not only for them but also for the 45 percent of workers still in permanent employment at a single company. **Work has become more modularized and variable, often organised in complex and geographically diverse value creation chains and temporal network structures.** More flexible working arrangements and individual choices have become the norm, especially where time and location of service are fixed due to job circumstances (e.g., in the care sector, gastronomy or traditional industry branches).

Often feared, demographic change is turning out to be a great opportunity for creating safer and healthier work. With decreasing unemployment, the negotiating power of workers has increased. The aging workforce lends greater urgency to health-related issues, demanding that employers do more while also being ready to do more themselves. Since personal material ambitions have declined and other values have become more salient, there is considerably more variance in retirement ages. While some work longer (because they want to), others take earlier retirement (because they can afford it). The result is that average working-life span has changed very little. Moderate migration flows to Europe help somewhat to keep the working and not-working shares of the population more or less in balance. Ultimately, technologically-driven productivity growth in combination with Europe's high capital stock lead to a situation in which a shrinking population does not result in shrinking wealth.

In 2040, the majority of workers are highly connected and almost everyone is supported in one way or another by real-time analytics and technologically innovative enhancements. There is huge diversity in working conditions, depending on individual values, preferences and the market value of the given work in combination with an employer's corporate culture. Working time can be anywhere from 10 to 60 hours per week. Taking some time off or even a sabbatical can follow years of running several projects simultaneously. Overall work engagement is significantly higher than 20 years ago. Work-life balance is no longer in focus, as work is seen as an essential part of life. Training

providers, offering courses like "Zen of success" or "Enhancing the buffers", are gaining in popularity. Non-fiction classics enjoying widespread popularity include "Engage and create", "99 extraordinary places to work", "How to be happy no matter what", "Clarity" and "Inside-out revolution". People are cultivating their individual plans for purpose and wellbeing. But of course, this is not a world of pure "peace and harmony". It is a world of choice and self-reliance, but also with a lot of short-sightedness, individualism, ignorance and carelessness, often leading to high-risk working environments. Too many workers are pushing things too far, leading to a burn-out or a deep professional crisis, for many an episode of their working life. Many have coaches to reduce stress and interpersonal conflicts at work. There is a broad variety of cures for calming the "hot-headed Icarus" on the market – and there are a lot of helping hands. But ultimately, **how to approach wellbeing, health and safety at work remains to a large extent a matter of individual choice and awareness.** One way or another, people assume responsibility and search for their personal happiness.



*Gernid*





# III.

## Productivity ("Fit for Work!")

"The EU should be concentrated on adapting to globalisation and global competitiveness." William Hague

"Gentleness doesn't get work done." Coco Chanel

### 2020

**EU economic competitiveness is under increasing pressure.** Ageing societies, saturated markets and dwindling domestic purchasing power, huge overcapacities and little innovation in some key industries, the desolate state of the infrastructure, an inefficient public sector in many EU regions, and, last but not least, the aftermath of the debt crises of the 2010s are some of the reasons why the EU's share of world GDP has been shrinking continuously over the last years. Nevertheless, compared to the global average, living standards in Europe are still comfortable. The best cars are still built in Germany and the City of London remains one of the leading hubs for the global capital flows. Many European corporations in sectors like ICT, robotics, energy systems, "clean technologies", bio-tech, chemicals, mechanical engineering and food – to name but a few – are still global market leaders. Insurance, the banking and financial services sector and other corporate services are strong pillars of the economy. However, staying at the top has become much harder. This is not only true for corporations, but also for individual workers. Peak performance is the

benchmark for all. While most employers acknowledge the importance of OSH, they see few opportunities – due to the tough economic climate – to invest in further prevention measures. **This is the world of "Grow or go!"** Large corporations and global investors are dominant game-players. And pressure at the end of the supply chain is intensifying ...

The corporate landscape in the EU is changing fast. A wave of mergers and acquisitions is leading to larger companies and conglomerates. The revenue share of small and medium sized enterprises is shrinking, simply because size matters: often only the biggest players have the marketing power, the appropriate distribution logistics, the resources for timely innovation, and the possibility to deliver at the lowest marginal costs. Large corporations are optimising globalised production patterns by taking advantage of different time zones and connecting their innovative R&D and design units to low-wage production sites within and outside Europe. Free trade regimes like CETA, TTIP and their counterparts with other regions are further contributing to the concentration processes in the corporate world. Easier access to EU markets for non-EU manufacturers and



service providers with considerably lower OSH standards and the increased volume of foreign direct investments in Europe are also changing perceptions of domestic players. Furthermore, “regulatory cooperation” with trading partners often ends up in a blockade of improvements in OSH regulation. Demands for new or higher OSH standards are regularly confronted with accusations of protectionism. In the first half of the 2020s, European industry thus finds itself in a market environment marked by **tough competition, lower social standards and increasing pressure for greater productivity**. In this situation, not only introducing further OSH standards, but also much of the regulation implemented over the previous decades in the field of OSH are perceived as inhibiting growth and competitiveness. Policymakers are being urged to continue with deregulation initiatives to make the EU economy “smarter” again and thus compatible with the conditions of the globalised marketplace. SMARTREG and other former programmes to reduce regulatory burdens and overcome other market barriers are perceived as steps “in the right direction” – but not enough. This position is held not only by employer organisations, market-liberal forces and shareholders. Socially-oriented governments are also accepting lower OSH standards as a “necessary evil” to avoid further job losses and relocations. In these years, a series of “pacts for competitiveness and growth” have shaped social dialogue at EU level, as well as collective bargaining dynamics between employer and employee organisations in member states or in specific branches. Though all policymakers naturally do their best to preserve existing jobs and enhance the economic growth prospects, it is an open secret that some branches systematically circumvent health-monitoring and prevention measures which are still obligatory by law – at least on paper. Almost all EU countries have recently reduced their budgets for enforcing OSH regulation and conducting labour inspections. In the boardrooms of large corporations there is a widespread attitude that it is just not possible to check whether all subcontractors comply with regulations. Instead, public authorities and policymakers are focusing on naming and blaming

“black sheep” and punishing peak excesses, orchestrated by enthralling media spectacles. In some cases, harsh penalties have been imposed on corporations that have ignored basic safety standards. As one cynical commentator once put it, “Pillories and show trials have to serve as substitutes for real progress and good practices in the field of OSH”. Another current trend involves the expansion of special economic zones (SEZ) in the EU, where national and EU laws have only limited validity and standards are lower. The basic justification for establishing an SEZ is to create a favourable climate for branches and regions especially struggling with global competition to attract more investment from abroad.

But a favourable regulatory environment is only one variable in the cost equation. To stay competitive, innovative products and continuously increasing productivity are crucial. Product cycles are thus becoming shorter, new technologies are being introduced quickly (often in a trial-and-error approach without sufficient knowledge of their potential new risks), and measures to enhance workforce productivity are intensifying. Implementation of new technologies and processes is normally realised with training and induction “on the job”, leading to situations where employees de facto serve as “guinea pigs” on the way to generating sound experiences and standards. The “Internet of things” and other automation processes are expanding at a breath-taking pace. Whenever cost-effective, work once carried out by workers is automated, leading to a significant net loss of jobs and increasing unemployment in the EU. New forms of man-machine interaction are shaping the remaining workplaces. In many cases, this reduces hazards, making work safer. But all too often, **there is a lack of resources and awareness of how to deal with the new risks emerging from these technological innovations**.

However, workforce health is seen as an important lever. Tailor-made incentive programmes to foster employee fitness are becoming mainstream. Health is seen as a key corporate management issue to enhance company performance. The question is how to get employees to go the “extra mile”. While sustainability, wellbeing and “good work” remain long-term goals, short-term results are

the order of the day. The widespread perception is that every Euro spent by a company on OSH-related measures must pay-off – in a not too distant future. In the face of rising costs due to unhealthy workplaces and high work density, “resilience building”, **“fitness coaching”** and **other health-related measures are seen by many managers as important tools for fostering productivity and competitiveness.** In the absence of legal guidelines and requirements, many companies are stepping up their corporate OSH efforts. Immediately managers create reasonable solutions, they are standardised, and measures are taken to ensure that all employees adhere to them. The result is a growing divergence in how employers deal with health and safety at work. Many develop detailed instructions and guidelines with the goal of reducing accidents and sick leave – and thus costs. Some introduce assessment systems with regularly-checked personalized scorecards. Individuals identified as “unsafe workers” are subjected to graduated sanctions. It is becoming quite normal for workers to operate under strict instructions about how to perform their daily work. They have to submit themselves to strict benchmarks and standards. Shop-floor workers are not the only ones affected. Managers are also under pressure to respond to competition and deliver expected returns and turnover increases – and at the same time to act fully in compliance with company rules. Some employers implement comprehensive “healthy working policies”, prohibiting unhealthy habits and behaviour, even beyond working hours. A commitment not to smoke or drink alcohol is often part of an employment contract. Nevertheless, mood enhancers and workplace doping remain widespread and are often tolerated. Overweight employees have to commit to daily weight-reducing activities. Company canteens serve functional food – but in practice, there is often not enough time to take a break for a proper meal. The media criticise companies for fighting every kind of “hedonistic pleasure” for health reasons, while encouraging their employees to use legal enhancers and technical means to boost performance. Surveillance of work performance (as well as personal lifestyles) is becoming omnipresent. Low levels of autonomy, combined

with an environment of strong expectations and high work density, have further increased – as various surveys show – work-related frustration, stress and psychosocial diseases in all EU countries. Many corporations are reacting to these findings by extending their reward systems. Whenever employees contribute to company success, they get a “carrot”. Many companies introduce incentives, e.g. less than three days of sick leave annually are rewarded with a bonus. Enhancement technologies are developed to improve the performance of workers and maximise – or even supplement – their potential. The border between the human body and technical “add-ons” becomes blurred. Increasingly, front-runner benchmarks and “best performance practices” in the field of OSH influence management decisions.

In branches where high-qualified workers are rare and sought after, high OSH standards are seen as a competitive advantage for attracting the “good ones”. Individualised healthcare plans and special services are very common for this category. Workplace wellbeing facilities and access to high-quality health services are thus more and more a status symbol for the high-performers on the upper floors. In many “progressive corporations”, the working day starts with collective brain balancing and focusing exercises. Company marathons and other sports competitions are very common – but participation is often obligatory. Companies pay for performance-enhancing implants for their employees as well as for egg freezing for their young female high-potentials. Using technological possibilities to delay childbearing a few years or the engagement of a surrogate mother has become a normal way of balancing work-life demands for many women. In turn, they can count on a company’s support to develop their professional potential.

At least compared to international standards, there is still much legislation on OSH issues. But **corporate power and lobbying have a stronger influence than in the past.** While the role of public policies and the regulatory framework for OSH has decreased, the corporate world has become the driving force for shaping working standards. Company policies define and benchmark behaviour, productivity and workplace safety. In many

cases, corporations act like states, setting ethical norms and having their own policies and “internal jurisdictions”. They often provide the life- and fitness-supporting infrastructure for their employees (for more privileged ones, these provisions also extend to their families). It is no coincidence that more and more management literature is about “new leadership” approaches and that these companions often borrow from the language of war. For example, one exceptionally popular book is: *Commanding heights: how to improve the combat strength of your workforce*. Indeed, management has again become more top-down – often bossy, while the consultation of employees in OSH issues has become more and more the exception. A common motive of the countless “new approaches” to human resources management is: “the more data, the more control”. Companies are thus collecting every bit of data available. **Access to employees’ and applicants’ personal data is easy because of open data clouds and very poor privacy regulation.** Furthermore, employers monitor workers and workplaces in real time. It has become the norm in most companies to require employees to wear sensor-packed badges which collect data on their work performance, on-site movements, activity at their interfaces, and so on. Managers have real-time access to the workflow of their employees in order to evaluate their performance. At an increasing number of workplaces, algorithms are now performing these evaluations. On detecting underperformance, a virtual voice admonishes the employee. For some tasks, workers have to wear “enhanced clothes” which trigger – in the case of any deviation – corrected movements. Some corporations are experimenting with monitoring facial images at work to detect micro-expressions providing hints of their employees’ moods and degrees of engagement. In the case of service workers in direct contact with customers, facial expressions are also monitored to ensure that they are acting in line with company “kindness guidelines”. A surprising collateral effect of “kindness tracking” has been a sharp increase in “obligatory smile-related depressions” (OSRD). A few companies have responded quickly, removing their kindness trackers from workplaces.

## 2030

Hand in hand with increasing life expectancy, average working life has increased in all EU member states. Legislation and policies are designed to motivate individuals to work longer – until and beyond the statutory retirement age. To compensate the effects of demographic change and to safeguard the viability of pension systems, pensions have been cut several times over recent years. Average weekly working time has been increased to 44 hours in most EU countries. A further strategy to deal with the consequences of ageing and shrinking European societies is the gradual development of a common immigration policy, designed to attract qualified workers from abroad. One side effect of the increasing recruitment of workers of foreign descent and the increasing number of corporate residences for such workers is that many feel no strong affiliation to the political systems of their respective host countries. In many cases, they feel more attached to the company they are working for. The same holds true for many domestic workers. **More and more corporations are providing “public services” for their employees** (e.g. housing, legal counselling, healthcare services, recreational facilities, gyms, child- and eldercare, cultural events, etc.), strengthening the phenomenon of “corporate homelands”. No one wants to lose the privileges associated with being part of the company.

As a general trend of the 2030s, OSH regulation has become more diverse and fragmented in the EU. While standards remain relatively high in growing regions (due more to market forces and economic strength than strong public authorities), they are eroding in the periphery. Following early examples like the Chinese textile industry around the Italian city of Prato or parts of the agricultural sector in Spain’s Costa del Sol, more and more clusters are emerging in certain European regions in which undocumented immigrants are employed in undeclared work and without any rights at all. Despite extremely unhealthy working conditions, public authorities often tolerate these local shadow economies. Many undocumented workers still believe in the European dream and hope to get a better job soon.

Overall, governments – whether at national level or at EU level – have become weaker. Most company boards regard worker participation as too slow, costly and inefficient to cope with running a successful business in a turbulent market environment. As a consequence, worker representatives have very little influence on company OSH practices. Most companies fulfil only the minimum standards of worker participation and any substantial consultation or co-determination on OSH-related questions is the exception. In practice, safety reps often act as employer whips. **Relations between employers and trade unions have become conflict-prone, or even antagonistic.** Some unions seek confrontation with employers and public authorities to counteract dwindling influence and the continuous curtailing of their rights, but are unable to reverse the trend. Meanwhile, in most corporations, union membership is associated with sanctions – more or less subtle in nature.

Physical and mental strength are a key assessment criterion when a vacancy has to be filled. Only applicants who are fit have a chance to get the job. Comprehensive health dossiers have become an important part of every application. Many employers previously feared absenteeism. But “presenteeism” has now become endemic and a serious problem in many companies, with many people going to work despite being ill. They pretend to be fit and healthy when they should rest, thus putting themselves and others at risk. People are embracing all kinds of technological innovations considered helpful for enhancing their overall fitness, their ability to learn and perform tasks, to work under extreme conditions and especially to work into old age. As regards OSH, the perception is widespread that workplace health and safety is first and foremost a question of individual behaviour. Employees with habits not “fitting into the scheme” attract the attention of a company’s health service, and if they do not change their habits they risk losing their jobs.

At the end of the 2030s, some groundbreaking innovations in the field of neurobiology and synthetic biology reach the market: more and more memory-enhancement chips, knowledge chips, mind-speeding chips as well as emotion-stabilizing chips are

becoming widely used to increase productivity and remain fit. Of course, there are also emerging risks and side effects associated with these technologies. As their assessment and handling is, apart from some basic norms and obligations, to a large extent voluntary, companies must determine the acceptable risk levels. **Risk assessment has become primarily a cost-benefit analysis,** with a strong focus on avoiding accidents and consequent liability claims. As a result, work organisation has become – as an overarching trend – much more authoritative. And indeed, clear rules, permanent surveillance and sanctions to safeguard compliance have led to a significant decline in workplace accidents. And yet, when accidents do happen, it is often the victim who is blamed. In most cases, a worker has not the financial means to win a lawsuit against his/her employer.

Within this context of turbulent and tough economic conditions and fundamental technological changes, slow onset hazards are often overlooked. These blind spots are reinforced by a jurisdiction acting on the sole basis of clearly evidence-based, not too ambitious regulations. Technological innovations are much faster than regulatory developments, and enforcement of existing regulation, thresholds and basic norms for health hazards at work is very poor. For many issues, company regimes are replacing state regulation. Nudging and pushing employees to be highly productive is seen as a core management competence.

In previous years, Europe’s share of world GDP has decreased significantly. Many branches and industries are simply no longer able to keep up with their competitors in the dynamic Asian economies. As a result, some large corporations, former flagships of the EU fleet on the global markets, have closed down or are now owned by foreign investors. Many industries are victims of their own success. High increases in productivity and limited growth in demand have led to overcapacities, in turn resulting in – often painful – restructuring. To a large extent, companies have replaced political entities and communities. Your status in life is greatly dependent on the “tribe” (i.e. company) to which you belong. Many employees are having to learn that companies are not such stable entities. While

acquisition by a new parent company might not only change the logo at the entrance, the whole company culture will change – sometimes for the better, sometimes for the worse.

## 2040

Most workers have internalised the pressure to perform. Driven by the fear of exclusion, they try to avoid signalling any weakness. They prefer to manipulate themselves with pills and devices to meet expectations. Instead of respecting the limits of physical and mental capabilities, the goal is to stretch boundaries – further and further. **The credo of achievement pervades schools.** Educational systems have become highly segregated. Many corporations have established their own “company schools” for their employees’ children. But irrespective of whether a state or corporate school, discipline, clearly defined tasks and deadlines, and competitive learning environments prepare students for their working lives. Highly talented students get scholarships to the most prestigious schools. Critics assume that our educational system has turned into a system of assessment centres, with education reduced to the single imperative: “Develop your fitness, enhance your performance!”

**In 2040, a yawning gulf exists between showmanship and daily reality.** Corporations are designing their own labels such as “Safety through excellence” or claiming to be a “Healthy company”. They have their own rules, health monitoring units and sanction systems. While some employers are increasing their investment in OSH-related measures and prevention, there is overall a sharp decline in resources available for workplace OSH. Insurance policies are perceived as pure instruments to avoid reliability risks. Most preventive services are organised in-house and – in line with management provisions – monitoring workers’ compliance is their core task. Any new prevention measure must be cost-effective. Social dialogue and collective bargaining have lost their relevance. Works councils and other forms of company-level worker participation have been degraded to communication channels. Management is setting the standards and policies – discontented employees are free to look for another job.

The number of work-related diseases, burn-outs, heart attacks, strokes, abuses, anxiety, depressions and even suicides has increased dramatically over recent years. For too long, the consequences of deteriorating working environments in many parts of society have been neglected. Older workers in weak health or with chronic diseases often live on the breadline. Reactions to permanent insecurity and the continuously increasing pressure to perform vary widely. Many withdraw into their cosy virtual worlds. Whistle-blowers publicise cases of extreme unhealthy practices at their workplaces. While many workers continue to follow the mantra of “I have to work harder”, others no longer want to subordinate their lives to a work ethos that judges the value of a human being purely on the basis of his or her economic productivity. Some are searching for allies. One recent phenomenon is the formation of “secret unions” all over Europe. Their aim is initially to provide support to the most vulnerable and precarious groups. Only a few, often personally affected, workers engage in these initially desperate endeavours at first, but over time, more and more have joined, thus creating a real prospect for change.









## IV.

# Protection

“Healthy citizens are the greatest asset any country can have.” Winston S. Churchill

“Indeed, when we examine all the foreseeable difficulties which threaten the survival of industrial civilisation, it is difficult to see how the achievement of stability and the maintenance of individual liberty can be made compatible.” Harrison Brown

### 2020

**The early 2020s are characterised by a cascade of multiple crises.** In the aftermath of the European debt crises, inflation has risen substantially, fuelled by high prices for oil, gas and other imports. Heavy debt burdens do not leave much room for public authorities to manoeuvre, forcing them to cut budgets and economise policies. In some EU countries, recession has become permanent. With the '22 bursting of the stock market bubble, a lot of insurance companies and private pension funds have gone bankrupt. Many of the baby-boom generation are having to postpone retirement and continue working over the age of 60. Growing economic and social problems have contributed to gains for far-left and right-wing alliances, putting the established parties under pressure. In some countries, ethno-political conflicts have intensified. Furthermore, environmental pressure has been increasing, as have global conflicts over natural resources. People are feeling unsettled and exhausted.

Experience of this cascading instability and turbulence has led to a change in perspectives. What most people want is a minimum

of security for themselves and their families. Stability is seen as more important than individual freedoms and choices. An overarching trend, confidence in markets to deliver solutions to pressing problems has eroded. To avoid excessive risk-taking by single economic players, laws have been tightened and control mechanisms strengthened. Managing crises and profound structural changes – and dealing fairly with new shortages – is what people are expecting from their governments. After decades of increasing individualisation and privatisation, community interests are attracting greater attention and regaining relevance. As a result, politics are slowly becoming more authoritative. Besides social and economic reforms, another example where stronger leadership has been applauded is the quick containment of the epidemics which are occurring more frequently in recent years. Surveys regularly show that security, a strong state and someone who takes care of their security are what most people are looking for.

**For different reasons, health policies have become a top priority on the political agenda.** First, the shrinking quality of healthcare systems has been seen as a

key indicator of growing social divides. Public healthcare has not only worsened; healthcare expenditure is set to balloon out of control. One key driver for rising health costs is the ageing population and the accompanying increase in chronic diseases. Additionally, with continuous technological innovations, treatment is becoming more expensive. The best treatments and safety measures are simply not affordable for everyone, creating harrowing personal dilemmas in which tough decisions have to be made. Some very expensive treatments and therapies have already been removed from normal healthcare coverage. To safeguard social security and pension systems, raising the statutory retirement age is regarded as necessary. **The employability of older workers is becoming a core concern.** Work-related health issues are coming into focus in public debates. The dominant perception is that unhealthy or high-risk work must no longer be tolerated, as its costs are borne by society as a whole. High OSH standards are the order of the day. This trend is backed by better data and research findings on the long-term risks of many substances and processes, which were formerly not sufficiently known or simply ignored as long no conclusive scientific proof existed. Step by step, priorities are shifting from mere productivity increases to safe and healthy working conditions, from enhancing competitiveness in the short term to stability and compliance with the rules.

Due to limited economic prospects in many EU regions, the 2020s see rising migration flows of young workers. Many are looking for better chances in the EU's core regions or in dynamic economies abroad. This leads in turn to shortages of skilled professionals in many branches and regions – and to further demographic imbalances. Governments try to compensate this by establishing further skill development programmes and integrating people with disabilities or chronic diseases into the labour market. Another priority is to further increase women's participation in employment. The overall goal is to achieve a significantly higher employment rate.

After years of high volatility and increasing skills shortages, corporations are also interested in economic stability, the sustainable management of human resources and good OSH standards. Together with unions, they

are taking the initiative and becoming a driving force in prioritizing OSH issues and properly addressing them. Employer and employee organisations are working hand in hand, partnering national governments and the EU to enhance the quality of work. EU member states are making maximum use of EU funds to improve their national OSH policies.

Many employers are introducing special health programmes to foster the employability of older and disabled workers. In addition, company programmes for other OSH-related measures are receiving more state subsidies. Funding priorities are on prevention, empowerment and early action to reduce work-related injuries or diseases, costly therapies and lost days of work. Unions and employer organisations are contributing their expertise to law-making, exerting significant influence on new legislative initiatives. Tripartite dialogue between governments, business and worker representatives is thus an important instrument for coordination and mutual information.

Governments and the EU institutions introduce strict thresholds for environmental pollution and exposure to hazardous substances and radiation. In all EU countries, comprehensive notification and compensation for addressing occupational diseases are becoming obligatory. High penalties for non-compliance and extended liability ensure that all companies play by the rules. Employers are accepting, often even supporting these political measures, as they want to avoid competition in the field of OSH. Many companies are further strengthening their compliance departments and in-house measures. They are also pushing for EU trade policies committing importers of goods and services to high working standards. Several EU trading partners are complaining about a new “wave of protectionism” emanating from EU member states and the European Commission. **OSH-related arguments have become prominent conflict issues in international trade.** In many other areas, the resurgence of trade barriers is observed in the late 2020s. Together with the shrinking effects on long-distance trade due to high fuel prices, these measures lead to a certain degree of de-globalisation and a strengthening of regional economic blocks.

To safeguard compliance with rules and driven by technological innovations, comprehensive digital monitoring systems are emerging. An EU-wide work-related exposure database is established, containing information on individual workers' life-long exposure and linked to digital 24-hour, on-site monitoring. High-quality digital records, instantly available in the cloud, measure almost every quantifiable aspect of daily working life in real time. Statistical analytics serve as an important base for developing and further legitimising policy measures. **Norms and procedures for company-level risk assessments are becoming harmonised EU-wide.** Government agencies are setting and developing risk assessment standards, relying on data, empirical research and algorithms and obliging employers to do more to avoid high-risk practices. Some criticise that the focus is on quantifiable and monitorable risks and norms and that psychosocial risks and other difficult-to-track factors are not receiving enough attention. Another problem, the "hare and tortoise challenge", lies in the fact that regulative processes often lag far behind technological changes and the new risks accompanying them. Changes at production sites are in many cases faster than legislators can cope with. Nevertheless, state authorities are developing comprehensive certification procedures. Almost every work process has to be certificated by independent certifying bodies, and employers must renew their certificates every few years or lose their operating license. Additionally, every employer is required to regularly consult with state occupational health advice agencies. The frequency of labour inspections has also been significantly increased. To be able to fulfil their tasks properly, the number of inspectors has been rising continuously over recent years. In regular courses, they are kept up-to-date on current regulations. Labour inspection teams have detailed information on a company's health data, previous controls and past OSH performance problems. In most cases, on-site checks are no longer necessary, as many operations are monitored automatically and the resultant data is available online. This enables labour inspectorates to carry out many more inspections. Repeated breaches lead to stiff penalties.

Over time, OSH measures and procedures have become much more specific and detailed due to statutory requirements (e.g. for inspections and insurance). Reporting obligations and thus documentation work for all involved have corresponding been increased. Legal databases represent compulsory reading for every manager, and it is a huge task to prepare for all new legislation in the pipeline. For workers, too, checklists and documentation requirements are similarly growing.

Employers and managers are held accountable for respecting all standards. But to implement comprehensive requirements and avoid possible liability claims, in many respects they hand down compliance to employees by installing tough regimes for them. As a result, not only the political arena has recently become more authoritative, but also work organisation within companies. **Managers are becoming more and more paternalistic, using "command and control" vis-à-vis their employees** to reduce health-related costs as well as to fulfil their obligations and avoid sanctions.

Following proper procedures is becoming a regulated and controlled task for every worker. High-risk behaviour is not tolerated at all: eliminating the causes of potential non-compliance is an integral part of any risk assessment. Real-time checklists (and real-time notifications in cases of non-compliance) support workers in avoiding errors and thus risks. As work organisation becomes more hierarchical and worker consultation and participation decreases, national authorities are in many ways replacing unions, works councils and other employee representatives. More than in the past, responsibility for good working conditions thus lies with the state, in part because workers in many branches are too disorganised to have a strong collective voice. Nevertheless, while collective bargaining and social dialogue have declined, unions, works councils and safety reps are increasingly acting as watchdogs, reporting and bringing managers' and employers' attention to situations in which standards are not respected or legal provisions satisfied. It has since become a rule that, the higher the number of injuries or amount of sick leave within a company is, the more safety reps have to be engaged.

Furthermore, when certain benchmarks are not met, employers have to make extra payments to national OSH funds.

Due to new legislation in the field of dismissal protection, job security has improved. Atypical work contracts have become much less frequent. Special provisions ensure that older employees and people with chronic diseases are not over-exerted and stay able to perform their assigned tasks. Strict regulations ensure that the legally maximum working time is not exceeded. Continual overtime has become the exception. **The use of robots and “power-clothes” for heavy-duty work is meanwhile obligatory to prevent unhealthy physical work.** Special office chairs ensure that work is done in an ergonomically correct posture. Companies must ensure that their workers have access to healthy working conditions.

Participating in social security systems has, in most member states, become obligatory for every type of worker, including the self-employed. Social entitlements are conditional on a healthy lifestyle and years of payment into the social security system. “Painfulness Accounts” giving access to earlier retirement or occupational retraining have been introduced by most member states for jobs with physical constraints, night work or exposure to hazards.

## 2030

Statistically, social inequality within EU member states has declined over the past decade, though inter-country inequality has risen. In the early 2030s, a common European identity and willingness for cross-border transfers in the remain limited. Social security safety nets and state budgets are still primarily organised nationally. One unsolved problem is that more and more “dirty work” is being transferred from dynamic economies abroad to weak regions on the periphery of Europe. Policymakers are trying to contain this trend by introducing stricter regulations and EU standards for foreign investors.

Many gradual developments have led to a considerable change in everyday working life. Guidelines, rules of conduct and provisions are playing a stronger role and taking more time. If employees do not comply with

a company’s rules, they are put in charge of “peeling potatoes”, i.e. they work with less autonomy and under greater management control.

And indeed, many former risks have been basically eliminated. Workplaces have become healthier, cleaner and safer. For example, back troubles due to hard physical labour or bad ergonomics have almost disappeared. Health and safety have in many respects become high priority issues, and the number of accidents and work-related diseases is declining year by year. As a result of high OSH standards and their strict enforcement, the number of accidents and physical hazards at work has declined remarkably. Nevertheless, studies show that in many branches and occupational groups stress symptoms are on the rise. Many employers are reacting by introducing more and mandatory rest breaks and intensifying their anti-bullying measures. A dense net of stress release centres has emerged, jointly financed by employers and public funds. Most workers appreciate that governments are acting to make their working conditions healthier.

**Technological innovations have also played an important role in fostering social cohesion and development.** A growing number of public-private partnerships have come into operation, established with the goal of safely developing and implementing new technologies. Particular interest is attached to how new technologies can contribute to social stability and safer workplaces. For example, increased automation of production and services is compensating imbalances within the labour market and labour shortages in certain sectors. Another example is the widespread use of drones for remote inspections of assets and infrastructure in difficult or unstable environments. This is safer, as no workers need be sent.

Outside the working sphere, the density of rules and obligations has increased over recent years. Any drug use or lifestyles harmful to health are socially shamed. Even obesity is often regarded as a form of unsocial behaviour. Unhealthy behaviour is discouraged through losses of entitlements to social welfare programmes or salary cuts. Wherever individual choices burden society as a whole, they become more restricted. For example,

everyone now has an annual CO<sub>2</sub> budget at his or her disposal – similar to bank accounts, interest on an overdraft is very high. Unhealthy habits and products are becoming increasingly penalized. These measures initially met with strong resistance, i.e. from car manufacturers, the tourism industry, large tobacco and alcohol corporations and convenience food and sweets producers because of shrinking consumption and the need to adjust their business models. To ease the transition of the sectors affected, structural funds have been established to support restructuring. In the longer term, most of corporate Europe supported the strict measures of the public authorities, as these legal requirements ultimately contribute to cost savings and a more productive workforce. As people are the most important resource of the European economy, the widely-accepted equation is “Health = Wealth”.

## 2040

At the end of the 2030s, **all relevant databases were integrated into “The digital WE”**, a huge “back-up of the real world” storing and connecting all kinds of information and updating itself in real time. Over the past two decades, system algorithms have become more and more sophisticated, and now every production site and every work process is fully transparent. For example, the WE is now even monitoring workers’ facial expressions to identify the possible onset of a depression or other psychosocial problems. In 2040, many workers have a personal “safety rob” accompanying them wherever they go, collecting data and giving advice. On detecting a problem, the WE instantly initiates preventive or corrective measures. Even at school, questions on how to work safely and maintain a healthy life are essential parts of curricula. Students learn much about “right and wrong behaviour” and the general message of many educational activities is “Don’t mess around, respect the rules!”. “Health promotion clubs” and “Youth health ambassadors” are quite common in all schools. Community activities play an important role, with social behaviour more valued than individual success. The driving concept is not to live at the expense of others or the community.

Awareness campaigns on healthy nutrition and the dangers of substances such as alcohol or tobacco, or of too much salt, fat and/or sugar, have become a characteristic feature in public spaces. Advertising for such products has been totally banned for years.

For more than two decades, the annual number of work-related accidents and diseases has been in continual decline. While high-risk and unhealthy workplaces still exist, they have become the exception. For most workers in Europe, employment is characterised by safe working environments. **Employee health is highly regarded.** A strong state, rules-based workflows and the use of new and innovative technologies have contributed to eliminating many risks and hazards, such as most carcinogens. Stable living conditions and community values lead the way. However, ever-present and dense regulation and surveillance have weakened many people’s sense of responsibility. They show no involvement in their work or their communities, as they have the impression that almost everything is already fixed. “Everything is organised for you” is the promise – but increasingly also the problem. There is a frequent feeling that everything is not so much about taking responsibility, but about blindly following the rules. More and more workers suffer from increasing pressure, rigid and inflexible demands and little workplace autonomy. Others feel – and increasingly fear – the burden of omnipresent surveillance. All this results in declining levels of motivation, increases in resignation, and all too often work-related depression. Many employees look outside their jobs for recognition and inner balance, and more and more no longer want to accept the paternalistic organisation of their working lives. In 2040, we are this witnessing both widespread contentment and a feeling that all these rules, constraints and commands are simply going too far ...





bernd







# 5.

## How to work with the scenarios

### Delving into the scenarios and starting a first exploration

Getting acquainted with the scenarios is the first step in working with them. While people can read scenarios on their own, they are more exciting to explore together with others.

#### Preparing the room/setting the stage

To impress upon participants that their task is to think through four very different “futures”, the room should be prepared by dividing it into four quadrants. This can be done by using strips of adhesive tape on the floor and propping up charts/posters in each quadrant labelled with the respective scenario title. The charts/posters may also include some characteristic pictures or icons for each scenario. The room thus represents the four scenarios, with each quadrant standing for one of them.

#### Reading the scenarios

If you have, for example, a group of 20 to 30 people in the room, it makes sense to split the group into four small circles. Each circle should be assigned to a scenario and provided with its description. One person from each

circle should read out the description aloud (for this exercise, the short version generally suffices), after which all participants take two minutes to reflect on their impressions. Each circle then passes on its scenario to the next group until each group/circle has read and reflected on each of the four scenarios.

Next, the whole group should walk (physically) through the four scenario quadrants, discussing the scenarios, guided by some open questions. As an introduction, you could ask them about their feelings on a certain scenario (e.g., anger, confidence, frustration, curiosity), as in most cases their initial impressions have a big impact on how they perceive and discuss a scenario. A second set of question could address important personal implications and potential fields of action they would expect throughout the course of each scenario. A third round of questions might address (weak) signals we see today for the respective scenario (e.g., actual developments or events in the press or in work environments). Responses –feelings, expected implications and examples of early signs – should be collected on a flipchart. After having discussed one scenario, the group should then move on to the next one until all four have been explored.

The following key questions might help the facilitators to structure this first exploration phase:

- How do you feel about this scenario?
- What would this scenario mean for you / your company / your organization / your industry?
- What would be the specific impacts if the environment changes in the direction described?
- What, in your view, are the main risks and hazards associated with this scenario? And what (new) rooms for manoeuvre and opportunities would arise from it?
- What recent developments or current trends already point towards this scenario?

#### Mapping examples, illustrations and quotes to scenarios

To strengthen a common understanding of the scenarios, you could additionally facilitate a brief “mapping exercise”, selecting relevant newspaper articles, pictures or quotes.

These are spread out on a table, and participants are asked to assign them to a scenario. Experience has shown that this brief exercise strengthens a common understanding of the scenarios among participants - different perceptions are visualized and additional nuances and references emerge. In addition to general questions referring to all scenarios, each scenario brings with it specific challenges and issues, which – insofar as sufficient time is available - could also be addressed and considered. For example, with reference to the “SELF-RELIANCE” scenario (in this publication), one specific question could be: “How can we maintain social cohesion in a highly-individualised society?” or “How can we support and empower workers with weak negotiation power and high-risk working environments?”

The aim of this type of immersion and exploration is to gain initial access to the scenarios and stimulate personal confrontation with them. The “map” with its various “future paths” will then be rolled out and examined. The anticipation of divergent “futures” helps to better understand and interpret signs of change and trigger open and constructive dialogue. Experience shows that each scenario can be perceived and evaluated very differently – even more so with more heterogeneous groups. And it is precisely these different perceptions and assignments that lead to an enriching exchange and an extension of one's own perspective.

**Testing pending or already-taken decisions on the basis of the scenarios**

For more in-depth work with the scenarios, they should be placed in a concrete reference to the room for manoeuvre available to those involved. How can a person or organisation act successfully in these different futures and pursue its objectives? How promising are certain decisions, behavioural patterns and strategies? How can your (planned) decisions, actions and plans be asserted in the various scenarios? What obstacles and opportunities do the different scenarios offer? How can you use your capabilities and resources to succeed in all presented scenarios?

Concrete possibilities for action are naturally dependent on the particular group or organisation that carries out the investigation.

A representative of a large industrial trade union has other options than a representative of a works council of a medium-sized company, an HR manager, a member of a national parliament, etc. Thus, the matrix below offers spaces that can only be meaningfully filled by the persons/groups using it.

	Scenario I Wellbeing	Scenario II Self-Reliance	Scenario III Productivity	Scenario IV Protection
Option for action 1				
Option for action 2				
Option for action 3				
...				
...				
...				
Option for action n				

In the left-hand column, some concrete options or courses of action should first be listed, before being assessed for each scenario. The question is: How positive or negative would the results or consequences of each decision or action be in the different scenarios and how would they impact your overall goals? “Very positive” could be, for example, marked with ++, “positive” with +, “neutral” with o, “negative” with -, “very negative” with - -, and actions that would probably lead to both positive and negative consequences with - / +.

The result of such an investigation could look like this ...:

	Scenario I Wellbeing	Scenario II Self-Reliance	Scenario III Productivity	Scenario IV Protection
Option for action x	--	-	- / +	o

In this example, you might need to distance yourself from this course of action, as it would probably not lead to good results in any of the scenarios. Benefits can be expected in just one scenario, but there also disadvantages needing to be taken into account.

... or like this:

	Scenario I Wellbeing	Scenario II Self-Reliance	Scenario III Productivity	Scenario IV Protection
Option for action x	o	++	+	-

Although this action has rather negative consequences in one scenario, it is promising, or at least neutral, in the other three. Such a course of action may therefore be a good strategy, but you should keep a close eye on future developments – and change course quickly if Scenario IV seems to be emerging.

.... or like this:

	Scenario I Wellbeing	Scenario II Self-Reliance	Scenario III Productivity	Scenario IV Protection
Option for action x	+	++	++	+

In this case, since positive effects are expected in each scenario, one should definitely pursue this plan, as it is a very robust strategy.

The purpose of this approach is to use the scenarios – which illustrate possible future contexts – for assessing planned or already-taken decisions and courses of action. The aim is to develop appropriate strategies, enabling you to react more quickly and effectively to changes and to question (in time) established behaviour patterns.

## Charting the path toward a “preferable” future

Scenarios are not predictions. They describe different but possible alternative futures. Therefore, it is legitimate to ask which scenario is preferred – and which one(s) should be prevented. This review can and should make everyone individually aware of the problems involved, allowing them to draw their own conclusions for action. Again, it is more interesting and challenging to discuss the scenarios with others. Such discussions can take place among peers from the same group of stakeholders. However, a set of scenarios can also serve as a constructive tool for groups and individuals with diverging perceptions and interests, prompting them to work towards finding common ground.

People often have a gut feeling about which scenarios they consider appealing and which seem less appealing. By reflecting on scenarios, images and thoughts about a subjectively desirable future can be concretised. However, discussing the less favoured scenarios – often excluded from serious consideration – is particularly profitable. They may occur in the future, and they provide opportunities for action – especially when one is prepared for them. Considering all scenarios, therefore, can shed light on possible blind spots in our perception, thereby widening our outlook on the future.

For this exploration, you can again use the previous matrix. But this time we are not looking at (planned or taken) decisions and their potential outcomes in each scenario. Instead, the purpose is to ask which measures or combination of measures can be taken to achieve or support the development of the preferred scenario over others, and what measures or combination of measure might help to avoid unpleasant scenarios.

If, for example, we prefer Scenario I, all actions classified in this scenario with ++ or + should be consolidated and promoted. Actions perceived as neutral or having negative consequences and possibly hindering its development (o, -, --) should by contrast be contained (Actions 4 and 5 in the example below):

	Scenario I Wellbeing	Scenario II Self-Reliance	Scenario III Productivity	Scenario IV Protection
Option for action 1	+			
Option for action 2	++			
Option for action 3	++			
Option for action 4	-			
Option for action 5	--			
...				
Option for action n				

By comparing and weighing alternatives for the long run, we are no longer simply enduring what will happen, but boosting our

ability to actively shape the future (with others).

Finally, the purpose of using scenarios is about making a difference. It is impossible to 'write the future' alone; you have to build alliances and common goals to shape the future. In most cases, working together with others creates much more possibilities than you would have on your own.

# 6.

## Course and participants of the project

### Course of the project

The “OSH 2040” scenarios were framed through a participatory process involving a group of stakeholders and experts, bringing together different perspectives and fields of expertise. In a multi-stage process, they worked on a common frame of reference about possible long-term contextual changes, in which OSH measures and policies might unfold in the future. The project was organized and financed by the European Trade Union Institute’s (ETUI) Working Conditions, Health and Safety Department, and conceptualised and facilitated in co-operation with the Berlin-based Institute for Prospective Analyses (IPA). A core ETUI/IPA team prepared the various project steps, facilitated the process and finally wrote and edited the scenarios.

### September – October 2014 Online questionnaire “Collecting voices”

The project kicked off with an online questionnaire with ten open questions addressing the future of occupational safety and health in the EU from different angles. Some 100

experts and stakeholders from different European countries were invited to participate. A total of 41 responded, sharing their views and expectations.

### 27 – 29 January 2015 First scenario workshop in Berlin, Germany

Based on the results of the online questionnaire, a first scenario workshop was prepared by the core team. In this 2½-day workshop, a group of 25 experts and stakeholders (recruited from the larger group of respondents to the online questionnaire) developed a common frame of reference to identify and cluster diverging but altogether possible long-term developments. The core task in this workshop was to identify and evaluate drivers and critical variables possibly impacting future OSH contexts in the European Union.

### 20 – 22 April 2015 Second scenario workshop in Asperen, Netherlands

In a second scenario workshop, the group of experts and stakeholders further developed the skeleton scenarios constructed in the first workshop, exploring different aspects and implications of each envisioned development. In doing so, the role and impact of different groups of players were also considered. The central aim of this workshop was to strengthen the underlying causal structure of the scenarios and to ensure that the scenarios were clearly distinguishable.

### July – December 2015 Editing phase

In the editing phase managed by the project core team, the scenarios were elaborated in narrative form. A review of OSH-related research and literature helped identify further aspects and add further implications of basic scenario logic elaborated in the two workshops. Two versions of each scenario were written – a more comprehensive one and an abbreviated version. Some basic premises regarding the scenario approach and instructions on how to use the scenarios as a basis for discussion and as a learning tool were added.



*Bernard*



## Scenario workshop participants

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Chapters "Scenarios – an Invitation for Dialogue",  
"Working with the scenarios", "Course and participants  
of the project"

Sascha Meinert

Chapter "On the way to 2040: Four scenarios"  
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Quotes of "Contemporary Witnesses": excerpts taken  
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“OSH in 2040” is a project looking at the long-term perspectives for making better and strategic decisions on Occupational Safety and Health (OSH) in the European Union. The aim is not to predict the future, but to identify and explore the challenges of different but altogether plausible futures, thereby strengthening the effectiveness of today’s actions and strategies.

The four scenarios (Wellbeing, Self-reliance, Productivity and Protection) were compiled by a group of stakeholders and experts. They illustrate diverging development paths for action-oriented ways forward up to 2040.

Why 2040? Real changes in the field of OSH require time, and even more time is needed for them to take effect. The time horizon of the scenarios thus focuses on the world in which the next generation will live and work, under the assumption that a long-term horizon is needed to induce real changes.

The scenarios presented in this publication contribute to an open and constructive dialogue among the many players involved in workplace health and safety policies in the EU and its member states.

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