**1. Introduction**

Today's mining industry is facing major technical changes. The earlier incremental development will most certainly be replaced by more radical changes based on digitization and the internet of things. These changes must be managed in a socially sustainable way so we don't create bigger problems than we are solving. We must design tomorrow's mining so that it can gain social acceptance. Tomorrow's mining companies must be able to offer safe and attractive workplaces that can attract young people to the industry. In a longer perspective, this can lead to the recognition of the mining industry as an ethical, ecological and diverse industry that can offer challenging jobs and attractive workplaces. The purpose of this book is to provide advice and simple guidance for how to develop and introduce, something we call *Social management of new technology*.

The book is shaped like a Swedish smorgasbord. This means that all chapters can be read independently. One consequence of this is that there may be some repetitions. Most chapters end with a number of summarizing practical advice.

The book consists of 22 chapters including this introduction. All chapters are available for computers, tablets and mobile phones on …. Någon adress här?

In chapter 2, The future of metal mining, we will discuss the challenges facing today's metal mining industry. We make 15 predictions about the future that should be seen as a contextual background to the discussions in the following chapters

In chapter 3, *A vision of “The New Attractive Mine”*, we have tried to create a vision of a future mine, considering the working environment and attractiveness all the way from the mine planning stage.

In chapter 4, *What characterizes an attractive mining work?*, we have used a general model which describes 22 dimensions of what characterizes an attractive work and applied it to the mining industry.

In chapter 5, *Attracting young people to the mining industry*, we have summarized our findings in six recommendations for creating attractive workplaces and increasing the visibility of the good parts of mining work

In chapter 6, *Meeting social challenges in established mining communities*, we broaden the frame of reference and discuss the mining industry's responsibility to operate in a socially sustainable society.

In chapter 7, *Risk analysis and prevention*, we focus on the safety aspects and present some practical models for risk assessment. We underline the role of the mine planners, they must find solutions that both promote high productivity and good economy as well as safety and a healthy work environment.

In chapter 8, *Safe and attractive workplaces for contractor personnel*, we address that workplace accidents is a problem in relation to outsourcing and contracting. We indicate a number points that can be taken into consideration when aiming to increase safety in these types of work settings.

In chapter 9, *Understanding, and improving, safety culture*, we discuss improved safety culture as a long-term and sustainable safety strategy. We suggests some considerations that mining companies can make when seeking to develop their safety culture

In chapter10, *Gender and gender equality*, we present a brief theoretical background on why gender is an important issue for the mining industry. The chapter ends with some general advice.

In chapter 11, *Can technology improve gender equality in mining?*, the myth is highlighted that new technology will automatically open the mines for women. More systematic work is required to correct the uneven gender balance

In chapter 12, *Working for gender equality in organizations*, we present a practical model for how to work with gender equality, a work that is necessary if mining is to be considered as a modern industry.

In chapter 13, *Lean mining*, we ….

In chapter 14, *Industry 4.0 in a mining context*, we explore the consequences that digitalization and Industry 4.0 can have on future mining work. The vast majority of mining work will be affected by these developments, but miners will not disappear, they will be different in the future.

In chapter15, *Mining 4.0 - Utopia or Dystopia*, we summarize our experiences in two extremes, a negative dystopian development and a positive utopian. The chapter concludes with six recommendations on how to start shaping the future of Mining 4.0 on human terms.

In chapter16, *Acceptance of new technology*, we give a brief overview of the most prominent theories that are important for understanding which factors affect the acceptance of new technologies.

In chapter 17, *Positioning technology*, we discuss the positive effects of positioning technology from a safety perspective and sets it against privacy concerns. Factors that need to be considered to enhance privacy and reduce the perception of misuse are discussed.

In chapter18, *investing in**new technology: guidelines for how to do it right - or to understand* what went wrong, we provide guidelines, or statements to consider, when investing in new technology. These questions are meant to aid the organization in the process towards technology that are effective, efficient and accepted from a user perspective.

In chapter19, *Adapting the technology to the miners*, we present a theory for human-centred design, which is a theory for designing equipment, workplaces, tasks and organisations on human terms.

In chapter 20, *Iterative design of mining workplaces*, we describe a circular method for mining planning that is more dynamic than today's linear planning. Furthermore, an iterative process offers more opportunities to create attractive workplaces for both new and existing employees by involving them more in the design process.

In chapter 21, *More research is needed*, we present a research agenda that focuses on to attract and keep skilled personnel in a future high-tech mining industry.

In chapter 22, *Checklist for safe and attractive mining workplaces*, we summarize our results in a practical checklist. There are many aspects, issues and questions that must be considered and addressed in order to achieve safe and attractive mining workplaces. This checklist aims to help highlight potential areas of improvement in a mining workplace that could make it a safer and more attractive workplace, without presenting in-depth solutions that may limit the decision-making process.