

Table of Contents

KEYNOTE SPEAKERS PROFILES.....	1
1 FOUNDATIONS OF SAFETY SCIENCE: THEORIES, PRINCIPLES, METHODS AND TOOLS.....	5
1.1 Emerging methods and tools in risk assessment for occupational accident prevention.....	5
1.2 Confronting uncertainties, surprises and the unforeseen in occupational risk analysis.....	12
1.3 Resilience vs risk-based regulatory approaches.....	14
1.4 Developments in qualitative analysis of accidents, risk and safety – the methodological legacy of Barry Turner.....	19
2 RESEARCH TO PRACTICE: ACHIEVEMENTS, LESSONS LEARNED AND CHALLENGES.....	38
2.1 Translating and transfer of research outputs into practice.....	38
2.2 OSH consequences of free movement of workforce.....	52
2.3 Occupational safety for temporary workers and further challenges.....	53
2.4 Controlling risks related to robots and other smart machinery of Industry 4.0 workplaces.....	57
2.5 Impact of stress and fatigue on occupational safety.....	59
3 RISK MANAGEMENT AND SAFETY CULTURE: CASE STUDIES, BEST PRACTICES AND FURTHER NEEDS.....	61
3.1 Safe by design approaches to occupational accident prevention.....	61
3.2 Safety climate and safety culture – assessment and promotion strategies.....	66
3.3 Lessons learned from occupational accidents and near-misses.....	92
3.4 Other sectoral case studies and good practices in occupational accident prevention.....	101
3.5 Global knowledge platform for sharing OSH information and good practices.....	113
4 SAFETY REGULATION: REASONABLE PRACTICABLE APPROACH.....	116
4.1 Role of different stakeholders in safety regulation.....	116
4.2 Governmental vs non-governmental regulation.....	122
4.3 The future of safety regulation.....	124
4.4 Modern labour inspection practices.....	131
5 EDUCATION AND TRAINING: PREREQUISITE FOR SAFETY.....	134
5.1 Role, knowledge and skills of OSH professionals towards accident prevention.....	134
5.2 Effectiveness of OSH training in companies.....	139
5.3 Integrating safety into mainstream education and professional and vocational training.....	148
5.4 Raising public awareness of safety aspects.....	160
6 COMPLEXITY AND SAFETY: MULTIDISCIPLINARITY AND INTER-STAKEHOLDER VIEW.....	161
6.1 Understanding safety complexity: Which experts and which competences do we need?.....	161
6.2 New generation of safety researchers.....	163
6.3 Rationality and irrationality in OSH.....	175