

Table S1. List of competences from the Hogan Competence Model.

| Number | Competency Name | Definition | Domain |
|--------|--------------------------|---|---------------|
| 1 | Anticipating Problems | Forecasts and detects errors, gaps, and potential flaws. | Business |
| 2 | Driving Innovation | Stimulates creative ideas and perspectives that add value. | Business |
| 3 | Financial Insight | Applies financial knowledge to achieve organizational goals and objectives. | Business |
| 4 | Industry Insight | Applies knowledge of industry trends and outlooks to achieve organizational goals and objectives. | Business |
| 5 | Leveraging Work Skills | Applies technology and job-relevant abilities to complete work tasks. | Business |
| 6 | Political Savvy | Recognizes, interprets, and works within the political environment of an organization. | Business |
| 7 | Presenting to Others | Conveys ideas and information to groups. | Business |
| 8 | Processing Information | Gathers, organizes, and analyzes diverse sources of information. | Business |
| 9 | Quality Focus | Strives to meet quality standards and produce quality work products. | Business |
| 10 | Safety Focus | Attends to precautions and proper procedures to guard against workrelated accidents and injuries. | Business |
| 11 | Sales Focus | Generates revenue by promoting products and services to others. | Business |
| 12 | Setting Goals | Identifies short-term objectives and steps to achieve them. | Business |
| 13 | Solving Problems | Identifies solutions given available information. | Business |
| 14 | Written Communication | Expresses ideas and opinions effectively in writing. | Business |
| 15 | Customer Focus | Provides courteous, timely, and helpful service to encourage client loyalty. | Interpersonal |
| 16 | Engagement | Demonstrates loyalty and commitment through enthusiasm and extra effort. | Interpersonal |
| 17 | Influencing Others | Persuades others to help achieve organizational goals and objectives. | Interpersonal |
| 18 | Leveraging Diversity | Respects and values individual differences to obtain a desired effect or result. | Interpersonal |
| 19 | Leveraging People Skills | Gets along well with others, is tactful, and behaves appropriately in social situations. | Interpersonal |
| 20 | Listening to Others | Listens and restates the ideas and opinions of others to improve mutual understanding. | Interpersonal |
| 21 | Negotiating | Explores alternatives to reach outcomes acceptable to all parties. | Interpersonal |

| | | | |
|----|-------------------------------|--|---------------|
| 22 | Networking | Builds and maintains a system of strategic business connections. | Interpersonal |
| 23 | Organizational Citizenship | Exceeds job requirements to help the organization. | Interpersonal |
| 24 | Relationship Building | Develops collaborative relationships to facilitate current and future objectives. | Interpersonal |
| 25 | Teamwork | Collaborates with others to achieve goals. | Interpersonal |
| 26 | Verbal Communication | Expresses ideas and opinions effectively in spoken conversations. | Interpersonal |
| 27 | Accountability | Accepts responsibility for one's actions regardless of outcomes. | Intrapersonal |
| 28 | Caring about People | Displays sensitivity towards the attitudes, feelings, or circumstances of others. | Intrapersonal |
| 29 | Competing with Others | Strives to exceed others' performance. | Intrapersonal |
| 30 | Dealing with Ambiguity | Comfortably handles unclear or unpredictable situations. | Intrapersonal |
| 31 | Dependability | Performs work in a reliable, consistent, and timely manner. | Intrapersonal |
| 32 | Detail Focus | Performs work with care, accuracy, and attention to detail. | Intrapersonal |
| 33 | Displaying Confidence | Projects poise and self-assurance when completing work tasks. | Intrapersonal |
| 34 | Driving for Results | Accomplishes goals, completes tasks, and achieves results. | Intrapersonal |
| 35 | Flexibility | Changes direction as appropriate based on new ideas, approaches, and strategies. | Intrapersonal |
| 36 | Handling Stress | Manages pressure without getting upset, moody, or anxious. | Intrapersonal |
| 37 | Integrity | Acts honestly in accordance with moral or ethical principles. | Intrapersonal |
| 38 | Overcoming Obstacles | Pursues goals and strategies despite discouragement or opposition. | Intrapersonal |
| 39 | Planning and Organizing | Coordinates and directs activities to help achieve business objectives. | Intrapersonal |
| 40 | Positive Attitude | Displays a positive disposition towards work. | Intrapersonal |
| 41 | Professionalism | Acts in accordance with job-related values, principles, and standards. | Intrapersonal |
| 42 | Rule Compliance | Adheres to directions, policies, and/or legal guidelines. | Intrapersonal |
| 43 | Self Development | Actively acquires new knowledge and skills to remain current with and/or grow beyond job requirements. | Intrapersonal |

| | | | |
|----|---------------------|---|---------------|
| 44 | Self Management | Demonstrates appropriate motivation, attitude, and self-control. | Intrapersonal |
| 45 | Staying Alert | Remains focused when performing monotonous tasks. | Intrapersonal |
| 46 | Taking Initiative | Takes action without needing direction from others. | Intrapersonal |
| 47 | Taking Smart Risks | Evaluates tradeoffs between potential costs and benefits and acts accordingly. | Intrapersonal |
| 48 | Time Management | Plans and prioritizes work to maximize efficiency and minimize downtime. | Intrapersonal |
| 49 | Working Hard | Consistently strives to complete tasks and assignments at work. | Intrapersonal |
| 50 | Attracting Talent | Recruits, rewards, and retains individuals with needed skills and abilities. | Leadership |
| 51 | Business Insight | Applies business knowledge to achieve organizational goals and objectives. | Leadership |
| 52 | Decision Making | Uses sound judgment to make timely and effective decisions. | Leadership |
| 53 | Delegating | Assigns work to others based on tasks, skills, and workloads. | Leadership |
| 54 | Developing People | Provides support, coaching, training, and career direction to others. | Leadership |
| 55 | Driving Change | Champions new methods, systems, and processes to improve performance. | Leadership |
| 56 | Driving Performance | Provides guidance and feedback to maximize performance of individuals and/or groups. | Leadership |
| 57 | Driving Strategy | Directs effort to achieve long-term business objectives. | Leadership |
| 58 | Inspiring Others | Motivates others to accomplish organizational goals. | Leadership |
| 59 | Leading Others | Demonstrates general leadership ability and effectiveness. | Leadership |
| 60 | Managing Conflict | Resolves hostilities and disagreements between others. | Leadership |
| 61 | Managing Resources | Coordinates people and financial and material capital to maximize efficiency and performance. | Leadership |
| 62 | Team Building | Assembles productive groups based upon required skills, goals and tasks. | Leadership |

Table S2. List of key competences from the KOC-TOP competence model.

| Number | Competence | Definition |
|--------|---|--|
| 1 | Digitalisation 4.0 | Digitalisation of infrastructure, augmented and virtual reality, IoT, technological literacy, etc. |
| 2 | Automation and robotics | Design, implementation and use of robots and work processes for the factories of the future, etc. |
| 3 | Competences of digitalised lean production | Lean & digital lean, mastery of lean thinking, digitalisation, etc. |
| 4 | Artificial intelligence competences | Machine learning, knowledge technologies, deep learning, computer vision, robot control, etc. |
| 5 | Competences in the field of research and development | Monetisation of development projects, innovation culture, rapid prototyping |
| 6 | Competences in the field of sensor and measurement systems for the factories of the future | / |
| 7 | Competences in the field of sustainable development | Environmental protection, circular economy, social responsibility |
| 8 | Competences in managing processes of technologies, technologies, human resources and organisations in technologically advanced environments | / |
| 9 | Business competences | Accounting, financial, bookkeeping |
| 10 | Management and implementation of changes | Work processes, technologies, intelligent business systems, strategy development |
| 11 | Quality assurance competences | / |
| 12 | Security competences | Technological and cyber security, occupational health, risk management |
| 13 | Sales competences | Marketing, improving the recognition of own brands, development of after-sales services |
| 14 | Cognitive competences | Problem solving, critical and systems thinking, creativity, lifelong learning |

| | | |
|-----------|---------------------------------------|--|
| 15 | Competences of emotional intelligence | Emotional literacy, psychophysical stability, empathy |
| 16 | Competences of communication | Communication with colleagues, clients, public speaking, business presentations, foreign languages |
| 17 | Cultural literacy | Learning about the cultures of foreign business environments |