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# Final attainment levels ICB4



| Version     | Date       | Valid from / to    |
|-------------|------------|--------------------|
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## 1. Legend

|                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CE                                        | Competency element according to ICB4: sequentially Group (Perspective, People, or Practice), Sequence number of the competency, and Competency name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| No                                        | Number code of the subject or letter code of the final term                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Subject                                   | Final attainment grouping. Within each competency element, the final attainments are grouped into one to a maximum of nine 'subjects'.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Subject and final attainment level coding | <p>Each final attainment level has a code for reference. This code is structured as follows: capital letter-number-digit-lowercase letter</p> <p>The capital letter represents the competency group, as follows:</p> <ul style="list-style-type: none"> <li>• C: Contextual competencies (Perspective)</li> <li>• G: Behavioral competencies (People)</li> <li>• V: Professional competencies (Practice)</li> </ul> <p>The letter is followed by a number (one or two digits) that indicates the sequence number of the competency within the competency group.</p> <p>This is followed by a number indicating the serial number of the subject within the competency, for example:</p> <ul style="list-style-type: none"> <li>• C11: Perspective 1, subject 1</li> <li>• C29: Perspective 2, subject 9</li> <li>• V131: Practice 13, topic 1</li> </ul> <p>Within each topic, each learning outcome has a letter code, for example:</p> <ul style="list-style-type: none"> <li>• G32b: People 3, topic 2, learning outcome b ("Active listening").</li> </ul> |
| Explanation                               | Explanation of learning outcome or reference to relevant literature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| B, C, D, P                                | IPMA level (resp. PMO IPMA-B, PMO IPMA-C, PMO IPMA-D)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| b, t, a                                   | (Maximum) level at which the final term can be tested: <b>b</b> – understanding, <b>t</b> – application, or <b>a</b> – analysis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## 2. Taxonomy

| b = Understanding |                | t = Application |                | a = Analyze |                |
|-------------------|----------------|-----------------|----------------|-------------|----------------|
| Verbs             | Nouns<br>nouns | Verbs           | Nouns<br>nouns | Verbs       | Nouns<br>nouns |
| Recognize         | Terms          | Apply           | Situations     | Analyze     | Analyses       |
| Name              | Facts          | Drafting        | Applications   | Deriving    | Models         |
| Comparing         | Processes      | Implement       | Principles     | Assess      | Problems       |
| Describing        | Relationships  | Calculate       | Criteria       | Design      | Conclusions    |
| Define            | Standards      | Define          | Rules          | Prioritize  | Predictions    |
| Explain           | Rules          | Choosing        | Methods        | Relate      | Comment        |
| Reproduce         | Criteria       | Solve           | Conclusions    | Conclude    | Concepts       |
| Explain           | Methods        | Derivation      |                | Weighing    |                |

### 3. learning outcomes ICB 4 PMO

#### 3.1 Contextual competence elements (Perspective)

| No  | Topics                                                                             | Explanation                                                                                                                                                     | B | C | D |
|-----|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| CE  | Perspective 1: Strategy                                                            |                                                                                                                                                                 |   |   |   |
| C11 | Mission, vision, and strategy                                                      |                                                                                                                                                                 |   |   |   |
| a   | Mission and vision of organizations                                                |                                                                                                                                                                 | a | t | b |
| b   | Core values of an organization (corporate values)                                  |                                                                                                                                                                 | a | t | b |
|     | Strategy determination:                                                            |                                                                                                                                                                 |   |   |   |
| c   | 7-S Framework© - McKinsey Consulting                                               |                                                                                                                                                                 | b |   |   |
| d   | Business Model Canvas©                                                             | Business Model Generation – Osterwalder, 2010                                                                                                                   | t |   |   |
| e   | SWOT                                                                               |                                                                                                                                                                 | a | t | b |
| C12 | Strategic performance management                                                   |                                                                                                                                                                 |   |   |   |
| a   | Benefit management                                                                 |                                                                                                                                                                 | t | b |   |
| b   | Strategic performance management                                                   | <ul style="list-style-type: none"> <li>Performance indicators</li> <li>Balanced Scorecard©</li> </ul>                                                           | t | b |   |
| c   | EFQM management model©                                                             |                                                                                                                                                                 | b |   |   |
| d   | Benchmarking                                                                       |                                                                                                                                                                 | t | b | b |
| C13 | Investment calculations                                                            |                                                                                                                                                                 |   |   |   |
| a   | NPV calculation                                                                    | Including the terms WACC/cost of capital, discount rate, internal rate of return, 'cash is king', opportunity costs, sunk costs (as concepts, not calculations) | a | t |   |
| b   | Payback period, Break Even Point                                                   |                                                                                                                                                                 | a | t |   |
| C14 | Business or organizational justification                                           |                                                                                                                                                                 |   |   |   |
| a   | Business case document (format and characteristics)                                | Measurable and unmeasurable benefits                                                                                                                            | a | t | b |
| b   | Zero scenario, delta measurement                                                   |                                                                                                                                                                 | b | b | b |
| c   | Business case for client and supplier                                              |                                                                                                                                                                 | b | b | b |
| d   | Relationship between business justification and project life cycle                 |                                                                                                                                                                 | t | t | b |
| e   | Relationship with feasibility study and benefits review/post-investment assessment |                                                                                                                                                                 | t | t | b |
| CE  | Perspective 2: Management, structures, and processes                               |                                                                                                                                                                 |   |   |   |
| C21 | Project management                                                                 |                                                                                                                                                                 |   |   |   |
| a   | Working methods: Improvisation, routine and systematic                             |                                                                                                                                                                 | t | t | b |
| b   | Conditions and characteristics of a project                                        |                                                                                                                                                                 | a | t | t |
| c   | Reasons for implementing a project                                                 |                                                                                                                                                                 | a | t | b |
| d   | Projects within the product life cycle                                             |                                                                                                                                                                 | b | b | b |
| e   | Phasing, controlling, and deciding                                                 | Control aspects (e.g., time, money, scope, quality, risks, benefits)                                                                                            | t | b | b |
| f   | Project Excellence Baseline© (PEB)                                                 |                                                                                                                                                                 | b |   |   |
| C22 | Program Management                                                                 |                                                                                                                                                                 |   |   |   |
| a   | When to choose a program                                                           |                                                                                                                                                                 | t | b |   |
| b   | Differences between projects and programs                                          |                                                                                                                                                                 | b | b | b |

|     |                                                                                     |                                                                                                                                                                                                               |   |   |   |
|-----|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| c   | Program organization: roles and associated tasks, responsibilities, and authorities | Program client, sponsor, sponsor group, program manager, change managers, program office, program steering group, program assurance                                                                           | t | b | b |
| d   | Multi-organizational programs                                                       | E.g., public-private partnerships                                                                                                                                                                             | b | b |   |
| e   | Program life cycle                                                                  | Program phases and plateau transitions                                                                                                                                                                        | b | b |   |
| f   | Core documents of a program                                                         | Vision document and blueprint, program plan, goal decomposition, business case                                                                                                                                | b | b |   |
| C23 | Portfolio management                                                                |                                                                                                                                                                                                               |   |   |   |
| a   | Portfolio and multi-project management                                              |                                                                                                                                                                                                               | t | t | b |
| b   | The portfolio organization                                                          |                                                                                                                                                                                                               | t | b | b |
| c   | Prioritization of programs and projects                                             | Multi-criteria analysis, Bellendiagram (bubble chart)                                                                                                                                                         | a | t |   |
| d   | Portfolio process                                                                   |                                                                                                                                                                                                               | t | b |   |
| C24 | Setting up PPP and PMO organizations                                                |                                                                                                                                                                                                               |   |   |   |
| a   | Steps for implementing a PPP organization                                           | Effects on the organization upon implementation                                                                                                                                                               | a | b |   |
|     | Permanent PMO:                                                                      |                                                                                                                                                                                                               |   |   |   |
| b   | Setting up a permanent PMO                                                          |                                                                                                                                                                                                               | t | b |   |
| c   | Features of a permanent PMO                                                         |                                                                                                                                                                                                               | t | b | b |
| d   | Added value of permanent PMO                                                        |                                                                                                                                                                                                               | t | b | b |
| e   | Organisational Competence Baseline® (OCB)                                           | Organizational maturity level with regard to project management                                                                                                                                               | t |   |   |
| C25 | Organizational theory                                                               |                                                                                                                                                                                                               |   |   |   |
| a   | Standing organization                                                               | <ul style="list-style-type: none"> <li>Line, staff, and support services</li> <li>Separation of duties</li> <li>Primary process</li> </ul>                                                                    | b | b | b |
| b   | Organizational structures                                                           | Mintzberg on management - Mintzberg                                                                                                                                                                           | b |   |   |
| c   | Flat versus hierarchical organization                                               | Span of control, depth of control                                                                                                                                                                             | b | b |   |
| d   | Supply chain/Chain management                                                       |                                                                                                                                                                                                               | b |   |   |
| e   | Interfaces between project/program and business operations                          | <ul style="list-style-type: none"> <li>Run the business/change the business</li> <li>Matrix, autonomous, and coordination structure</li> </ul>                                                                | b | b | b |
| f   | System approach                                                                     |                                                                                                                                                                                                               | t | b |   |
| g   | TQM Total Quality Management                                                        |                                                                                                                                                                                                               | b |   |   |
| C26 | Project, program, and portfolio management standards and methods                    |                                                                                                                                                                                                               |   |   |   |
| a   | ISO standard 21500:2012, Guidance on Project Management®                            |                                                                                                                                                                                                               | b |   |   |
| b   | Project management standards                                                        | <ul style="list-style-type: none"> <li>PMBok Guide®, PRINCE2®, PMW, PMC (as described in "Guide to methods in project management")</li> <li>Adapting methods for specific organizations/situations</li> </ul> | t | b |   |
| C27 | Process development methods                                                         |                                                                                                                                                                                                               |   |   |   |
| a   | Agile                                                                               | Agile manifesto and agile principles                                                                                                                                                                          | t | t | b |
| b   | Scrum                                                                               | Roles, events, artifacts, concepts                                                                                                                                                                            | t | t | b |
| c   | Lean Six Sigma                                                                      | DMAIC and DMDAV                                                                                                                                                                                               | b | b |   |

|     |                                                                      |                                                                                                                                                               |   |   |   |
|-----|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| d   | Kanban                                                               |                                                                                                                                                               | t | b | b |
| C28 | Personnel management                                                 |                                                                                                                                                               |   |   |   |
| a   | Role of project, line, and HR manager in HRM of project participants | In acquisition, management, and termination/responsibilities, dependencies, and cohesion between project and standing organization                            | t | b | b |
| b   | Competency management                                                | Includes learning single, double, and triple loops                                                                                                            | t | b |   |
| C29 | Financial administration                                             |                                                                                                                                                               |   |   |   |
| a   | Cost classifications                                                 | Fixed and variable costs, direct and indirect costs                                                                                                           | b | b | b |
| b   | Allocation of indirect costs                                         | <ul style="list-style-type: none"> <li>Storage, over- and under-absorption</li> <li>Cost center method</li> </ul>                                             | b |   |   |
| c   | Fundamentals of financial administration                             | <ul style="list-style-type: none"> <li>General ledger account, journal entries, journals</li> </ul>                                                           | b | b |   |
| d   | Financial statements                                                 | <ul style="list-style-type: none"> <li>Balance sheet, profit and loss statement (EBIT and EBITDA), cash flow statement, IFRS</li> </ul>                       | b | b |   |
| e   | Investments and depreciation                                         | Operating expenses (OPEX) and Capital expenditures (CAPEX)                                                                                                    | b | b |   |
| f   | Cash flow related to investments                                     |                                                                                                                                                               | b | b |   |
| g   | Valuation of projects                                                | Projects in progress                                                                                                                                          | b | b |   |
| CE  | Perspective 3: Compliance, legislation, and regulations              |                                                                                                                                                               |   |   |   |
| C31 | Sustainability                                                       |                                                                                                                                                               |   |   |   |
|     | Sustainability principles:                                           |                                                                                                                                                               |   |   |   |
| a   | People, planet, profit                                               |                                                                                                                                                               | t | t | b |
| b   | The 10 principles of the UN Global Compact                           |                                                                                                                                                               | t | b |   |
| c   | CSR: Corporate Social Responsibility                                 | ISO standard 26000: Corporate social responsibility© (CSR)                                                                                                    | a | t | b |
| C32 | Legislation and regulations                                          |                                                                                                                                                               |   |   |   |
| a   | Sources of law                                                       | Difference between law, statutes, customary law, case law                                                                                                     | b | b |   |
| b   | Areas and forms of law                                               | <ul style="list-style-type: none"> <li>Private law, public law</li> <li>Mandatory, regulatory, and supplementary law</li> </ul>                               | b | b |   |
| c   | Responsibility of the project manager in law enforcement             |                                                                                                                                                               | b | b | b |
| d   | Agreements                                                           |                                                                                                                                                               | t | b | b |
| e   | Failure to fulfill an agreement                                      |                                                                                                                                                               | t | b | b |
| f   | Unlawful act                                                         | Strict liability, causal link                                                                                                                                 | t | b | b |
| g   | Norms, regulations, and standards                                    |                                                                                                                                                               | b | b | b |
| h   | Patent and trademark law                                             | Intellectual property, copyright, patents, licenses                                                                                                           | b | b |   |
| C33 | Health, security, safety, and environment                            |                                                                                                                                                               |   |   |   |
| a   | Occupational health and safety legislation                           | Risk assessment, safety plan, duty of care                                                                                                                    | t | b | b |
| b   | WABO legislation                                                     | Activities Decree and Activities Regulation, Environmental Permit (WABO), Environmental Permit, EIA (Environmental Impact Assessment), environmental offenses | b | b |   |

|     |                                                          |                                                                                                                                      |   |   |   |
|-----|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| c   | Legislation in the field of data security, privacy, etc. |                                                                                                                                      | t | t | b |
| CE  | Perspective 4: Influence and interests                   |                                                                                                                                      |   |   |   |
| C41 | Influence and interests                                  |                                                                                                                                      |   |   |   |
| a   | Formal and informal power and influence                  | Influence – Robert B Cialdini (Reciprocity, Commitment and consistency, Social proof, Liking, Authority, Scarcity)                   | t | t | b |
| b   | Sources of interest                                      |                                                                                                                                      | t | b |   |
| c   | Conflicts of interest                                    |                                                                                                                                      | t | b |   |
| d   | Sources of power                                         | <ul style="list-style-type: none"> <li>• PESTLE analysis</li> <li>• Seven bases of power – Hersey, Blanchard, and Johnson</li> </ul> | t | b | b |
| CE  | Perspective 5: Culture and values                        |                                                                                                                                      |   |   |   |
| C51 | Culture and values                                       |                                                                                                                                      |   |   |   |
| a   | Dimensions of national cultures                          | All dissenters – Hofstede                                                                                                            | t | t | b |
|     | Corporate culture:                                       |                                                                                                                                      |   |   |   |
| b   | Organizational culture and decision-making               | Investigating and changing organizational culture – Quinn                                                                            | b | b |   |
| c   | Organizational culture model – Schein                    | Values, artifacts, and assumptions                                                                                                   | b | b |   |

### 3.2 Behavioral competency elements (People)

| No. | Topics                                                | Explanation                                                                      | B | C | D |
|-----|-------------------------------------------------------|----------------------------------------------------------------------------------|---|---|---|
| CE  | People 1: Self-reflection and self-management         |                                                                                  |   |   |   |
| G11 | Self-reflection and analysis                          |                                                                                  |   |   |   |
| a   | Emotional intelligence - Goleman                      | Self-awareness, self-management, social skills, empathy, motivation              | t | t | b |
|     | Self-reflection and analysis techniques:              |                                                                                  |   |   |   |
| b   | Rational Emotive Therapy® (RET)                       |                                                                                  | b |   |   |
| c   | Johari window                                         |                                                                                  | t | t | t |
|     | Personal self-awareness:                              |                                                                                  |   |   |   |
| d   | Core quadrants                                        | Inspiration and quality in organizations – Daniel D. Ofman                       | t | t | b |
| e   | Aware of personal characteristics                     | Spiral dynamics                                                                  | t | b |   |
| G12 | Personal goal setting and time management             |                                                                                  |   |   |   |
| a   | Self-motivation                                       |                                                                                  | b | b | b |
| b   | Steps in goal setting                                 | Goal setting - Locke and Latham                                                  | t | b |   |
| c   | Seven Habits of Effective Leadership (Covey)          |                                                                                  | t | b | b |
| d   | Personal time management                              | Eisenhower Matrix                                                                | a | t | t |
| G13 | Stress Management                                     |                                                                                  |   |   |   |
| a   | Tension versus stress/burnout                         | Balance between workload and resilience                                          | b | b | b |
| b   | Symptoms & causes of stress                           |                                                                                  | b | b | b |
| c   | Stress management for yourself and others             | Relaxation techniques, reducing physical, emotional, and rational tension        | b |   |   |
| d   | Intervention techniques for reducing stress           | Revitalizing/energizing, team-building activities, escalating and de-escalating  | b | b |   |
| CE  | People 2: Personal integrity and reliability          |                                                                                  |   |   |   |
| G21 | Ethics                                                |                                                                                  |   |   |   |
| a   | Types of ethics                                       | Virtue ethics, duty ethics, consequential ethics, care ethics                    | a | b | b |
| b   | Personal ethics versus business ethics                |                                                                                  | b | b |   |
| c   | Professional standards and norms                      | IPMA Code of Ethics®                                                             | b | b | b |
| G22 | Reliability                                           |                                                                                  |   |   |   |
| a   | Aspects of reliability                                | Consistency/Transparency/Consistent action/Predictability                        | b | b | b |
| b   | Building reliability in a network of involved parties | Strong and weak ties (The strength of weak ties – Granovetter)                   | a | b | b |
| CE  | People 3: Personal communication                      |                                                                                  |   |   |   |
| G31 | Communication                                         |                                                                                  |   |   |   |
| a   | Communication model                                   | Sender, channel, receiver, message, feedback, noise                              | b | b | b |
| b   | Levels of communication                               | What do you mean? – Schultz von Thun: Content, relational, expressive, appealing | t | t | b |

|            |                                                             |                                                                                                                                                           |   |   |   |
|------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| c          | Communication channels                                      | Verbal, written, audiovisual, digital (including social media)                                                                                            | a | t | b |
| d          | Miscommunication and noise                                  | Selective perception, cognitive dissonance, internal and external noise                                                                                   | a | t | b |
| e          | Criteria for good communication                             | <ul style="list-style-type: none"> <li>Effective, efficient, acceptable</li> <li>Comprehensible (tailored to the target group)</li> </ul>                 | a | t | t |
| <b>G32</b> | <b>Conversational skills</b>                                |                                                                                                                                                           |   |   |   |
| a          | Verbal and nonverbal communication                          |                                                                                                                                                           | t | t | t |
| b          | Active listening                                            | Hm, summarizing, paraphrasing, and asking follow-up questions; reporting, empathy                                                                         | t | t | t |
| c          | Asking the right questions                                  | Open, closed, suggestive, and rhetorical questions                                                                                                        | t | t | t |
| d          | Giving and receiving feedback                               |                                                                                                                                                           | t | t | b |
| e          | Bad news conversations                                      |                                                                                                                                                           | t |   |   |
| <b>G33</b> | <b>Meetings</b>                                             |                                                                                                                                                           |   |   |   |
| a          | Effective meetings                                          | Success and failure factors and interventions during preparation, the meeting itself, and follow-up                                                       | a | t | b |
| b          | Agenda and agenda items                                     | <ul style="list-style-type: none"> <li>Layout and order of agenda items</li> <li>Informative, commentary, decision-making, and planning phases</li> </ul> | t | t | b |
| c          | Meeting roles                                               | Chair, secretary or minute-taker, participant                                                                                                             | t | t | t |
| <b>G34</b> | <b>Workshops</b>                                            |                                                                                                                                                           |   |   |   |
| a          | Workshop features                                           |                                                                                                                                                           | t | t | b |
| b          | Setting up and conducting workshops                         | Process steps and workshop phases                                                                                                                         | a | t | t |
| c          | Roles and responsibilities in workshops                     | Workshop owner, facilitator, participant, and secretary/workshop assistant                                                                                | t | b | b |
| <b>G35</b> | <b>Presenting</b>                                           |                                                                                                                                                           |   |   |   |
| a          | Effectiveness of presentation                               | Speech pattern, verbal and nonverbal behavior, connecting with the target audience                                                                        | a | t | b |
| b          | Elevator pitch                                              |                                                                                                                                                           | b | b |   |
| c          | Points to consider for good visual support in presentations |                                                                                                                                                           | a | t | b |
| <b>G36</b> | <b>Written communication</b>                                |                                                                                                                                                           |   |   |   |
| a          | Effective written communication                             | Requirements: comprehensibility; accuracy; conciseness; attractiveness                                                                                    | t | t | t |
| b          | Document design and structure                               | Every communication includes the theme of the text, the <i>questions</i> to be discussed at, and the <i>answers</i> to those questions.                   | t | t | b |
| <b>CE</b>  | <b>People 4: Relationships and engagement</b>               |                                                                                                                                                           |   |   |   |
| <b>G41</b> | <b>Openness</b>                                             |                                                                                                                                                           |   |   |   |

|            |                                                                          |                                                                                                                                                                                 |   |   |   |
|------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| a          | Creating an open project culture                                         | Action science – Argyris (model 1/model 2)                                                                                                                                      | t | b |   |
| b          | Aspects, characteristics, and policy regarding openness                  | - Candor, accessibility, participatory and introspective openness - Influence of corporate culture, confidentiality, and security aspects                                       | t | t | b |
| <b>G42</b> | <b>Advising</b>                                                          |                                                                                                                                                                                 |   |   |   |
| a          | Role of PM as advisor                                                    | Process Consultation Revisited – Schein (3 models, 5 principles)                                                                                                                | t | b |   |
| b          | Building arguments                                                       | The uses of argument – Toulmin                                                                                                                                                  | t | t | b |
| c          | Relationships in consulting                                              | Under-over / together-against                                                                                                                                                   | a | t | b |
| <b>G43</b> | <b>Motivation</b>                                                        |                                                                                                                                                                                 |   |   |   |
| a          | Motivation theory                                                        | <ul style="list-style-type: none"> <li>• 4 extrinsic and intrinsic motivators</li> <li>• Self-determination (3 basic needs)</li> <li>• (Both according to Deci/Ryan)</li> </ul> | b | b |   |
| b          | Motivation and hygiene factors                                           | How Do You Motivate Employees Herzberg                                                                                                                                          | t | b | b |
| <b>CE</b>  | <b>People 5: Leadership</b>                                              |                                                                                                                                                                                 |   |   |   |
| <b>G51</b> | <b>Leadership</b>                                                        |                                                                                                                                                                                 |   |   |   |
| a          | Differences and similarities between leadership and management           |                                                                                                                                                                                 | b | b | b |
| b          | Leadership                                                               | Three Levels of Leadership – Scouller (public, private, and personal leadership)                                                                                                | a | b |   |
|            | <b>Leadership styles:</b>                                                |                                                                                                                                                                                 |   |   |   |
| c          | Situational leadership                                                   | According to Hersey & Blanchard                                                                                                                                                 | a | t | b |
| d          | Leadership styles                                                        | Leadership that gets results – Goleman                                                                                                                                          | t | b |   |
| e          | Influence and involvement                                                | Circles of influence and engagement                                                                                                                                             | t | b | b |
| f          | Assertiveness                                                            | Assertiveness vs. agreeableness vs. aggressiveness                                                                                                                              | t | t | b |
| g          | Balance between role perceptions and role expectations                   |                                                                                                                                                                                 | t | b |   |
| <b>CE</b>  | <b>People 6: Teamwork</b>                                                |                                                                                                                                                                                 |   |   |   |
| <b>G61</b> | <b>Team life cycle</b>                                                   |                                                                                                                                                                                 |   |   |   |
| a          | Team development stages                                                  | - Tuckman's model: Forming, storming, norming, performing, and adjourning<br>- Team building                                                                                    | a | b | b |
| b          | Phases of team formation in relation to situational leadership           |                                                                                                                                                                                 | a | b | b |
| <b>G62</b> | <b>Successful teams</b>                                                  |                                                                                                                                                                                 |   |   |   |
| a          | Team composition                                                         | Professional and work-related, cooperation and competence                                                                                                                       | t | b |   |
| b          | Team roles                                                               | Team roles – Belbin                                                                                                                                                             | b | b |   |
| c          | Dealing with resistance, the necessity of 'difficult' people in the team |                                                                                                                                                                                 | t | b | b |

|            |                                                                |                                                                                                                                                                                                                                     |   |   |   |
|------------|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| d          | Causes, symptoms, and prevention of group blindness            |                                                                                                                                                                                                                                     | b |   |   |
| e          | Management of virtual teams                                    |                                                                                                                                                                                                                                     | a | t | b |
| <b>CE</b>  | <b>People 7: Conflicts and crises</b>                          |                                                                                                                                                                                                                                     |   |   |   |
| <b>G71</b> | <b>Crisis Management</b>                                       |                                                                                                                                                                                                                                     |   |   |   |
| a          | Crisis plan, content and composition                           |                                                                                                                                                                                                                                     | t | b |   |
| b          | Desired leadership style and competencies in crisis management |                                                                                                                                                                                                                                     | t | b |   |
| <b>G72</b> | <b>Conflict management</b>                                     |                                                                                                                                                                                                                                     |   |   |   |
| a          | Types of conflicts                                             | - Business, scarcity, power, and socioeconomic conflicts<br>- Functional vs. dysfunctional conflicts                                                                                                                                | b | b | b |
| b          | Stages in a conflict                                           | Pondy: 4-stage escalation model (1 Latent, 2 Perceived, 3 Felt, 4 Manifest)                                                                                                                                                         | b | b | b |
| c          | Conflict regulation mechanisms in different conflict phases    |                                                                                                                                                                                                                                     | t | b | b |
| d          | Conflict management styles                                     | Thomas & Kilmann model                                                                                                                                                                                                              | a | t | b |
| e          | PM in different roles in conflicts                             |                                                                                                                                                                                                                                     | t | b |   |
| <b>CE</b>  | <b>People 8: Resourcefulness</b>                               |                                                                                                                                                                                                                                     |   |   |   |
| <b>G81</b> | <b>Problem solving</b>                                         |                                                                                                                                                                                                                                     |   |   |   |
| a          | Steps in problem solving                                       | Shoji Shiba & David Walden, Four Practical Revolutions In Management, Systems for Creating Unique Organizational Capability:<br>- 9- and 7-step problem-solving approach (WV model)<br>- Proactive, reactive, and corrective phases | b | b |   |
| b          | Cause identification techniques                                | Cause-and-effect diagram, analytical thinking, systems approach                                                                                                                                                                     | t | b | b |
| c          | Solution identification techniques                             | Brainstorming, expert opinion, lateral thinking                                                                                                                                                                                     | t | b | b |
| d          | Solution evaluation techniques                                 | Prototyping, value analysis, scenario planning                                                                                                                                                                                      | t | b |   |
| e          | Decision-making techniques                                     | Consensus, majority, unanimity, compromise, authority, delegation                                                                                                                                                                   | t | b | b |
| <b>G82</b> | <b>Creativity</b>                                              |                                                                                                                                                                                                                                     |   |   |   |
| a          | Stages in the creative process                                 | Start, divergent, convergent, and decision-making phases                                                                                                                                                                            | t | t | b |
| b          | Divergent creativity techniques                                | Solution-focused formulation, mind mapping, brainstorming, brown paper sessions, and analogies.                                                                                                                                     | t | t | b |
| c          | Advanced divergent creativity techniques                       | Inside-out listening, formulating stepping stones, and lateral thinking (such as De Bono's six thinking hats).                                                                                                                      | t | b |   |
| d          | Convergent creativity techniques                               | Nominal choice (choosing), mood boards and mirror conversations                                                                                                                                                                     | t | t | b |

|             |                                                      |                                                                                                                    |   |   |   |
|-------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---|---|---|
|             |                                                      | (developing) and multi-criteria analysis (selecting),                                                              |   |   |   |
| e           | Advanced convergent creativity techniques            | COCD box© (choosing), sensory deepening (developing), and value analysis (selecting).                              | t | t |   |
| <b>CE</b>   | <b>People 9: Negotiating</b>                         |                                                                                                                    |   |   |   |
| <b>G91</b>  | <b>Negotiating</b>                                   |                                                                                                                    |   |   |   |
| a           | Negotiation strategy                                 | Thomas & Kilman/Win-Win, Win-Lose (in accordance with conflict management)                                         | a | t | b |
| b           | Harvard method (mutual gain)                         | Excellent Negotiation – Fisher, Ury, Patton (4 principles, plus BATNA: Best Alternative to a Negotiated Agreement) | a | t | b |
| c           | Positional Negotiation                               | Opening offer, target point, resistance point, expected outcome, breaking point                                    | a | t | b |
| d           | Phases in negotiation                                | Preparation, run-up, opening, exploration, implementation, and conclusion                                          | t | b |   |
| e           | Aspects of negotiation                               | Interests, balance of power, climate, content, and room for maneuver (support base)                                | t | b |   |
| <b>CE</b>   | <b>People 10: Results orientation</b>                |                                                                                                                    |   |   |   |
| <b>G101</b> | <b>Results orientation</b>                           |                                                                                                                    |   |   |   |
| a           | Efficiency, effectiveness, and productivity          |                                                                                                                    | t | b | b |
| b           | Results-oriented project management                  | Breaking the Code of Project Management – A. Laufer (5 principles)                                                 | t | b |   |
| c           | Entrepreneurship                                     | Entrepreneurship – Hisrich, Peters, Shepherd                                                                       | t | b |   |
|             | Efficiency:                                          |                                                                                                                    |   |   |   |
| d           | Principles and conditions for continuous improvement | Kaizen: The Key To Japan's Competitive Success – Masaaki Imai                                                      | a | t | b |
| e           | Techniques for efficiency                            | Kaizen: 5S improvement approach and 5xW and 1xH                                                                    | t | b | b |
| f           | Advanced techniques for efficiency                   | Kaizen: areas of focus, the 4xM checklist, and the 7 statistical tools                                             | t | b |   |
| g           | Political and social sensitivity                     |                                                                                                                    | t | b |   |

### 3.3 Professional competence elements (Practice)

| No. | Topics                                                   | Explanation                                                                                                                                                                           | B | C | D |
|-----|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| CE  | Practice 1: Approach                                     |                                                                                                                                                                                       |   |   |   |
| V11 | Approach                                                 |                                                                                                                                                                                       |   |   |   |
| a   | Project success and the criteria for success and failure | Time/Money/Scope/Quality/Value                                                                                                                                                        | t | t | t |
| b   | Success and failure factors                              | Chaos Report / Standish Group 2022<br>Ensure a thorough analysis                                                                                                                      | t | t | b |
| c   | Project management team success                          |                                                                                                                                                                                       | t | b | b |
| d   | Identifying learning points                              | Experiences and lessons learned from previous projects and the current project are very useful for determining and periodically reassessing the right project approach for a project. | t | t | t |
| e   | Advising on the right approach                           | Reinventing Project Management – Shenhar, Dvir, Heising (2012) and Voss (2012). Basic knowledge of MoP, MSP, and SAFe                                                                 | t | b | b |
| CE  | Practice 2: Goals and value                              |                                                                                                                                                                                       |   |   |   |
| V21 | Expectations, requirements, and benefits                 |                                                                                                                                                                                       |   |   |   |
| a   | Objectives versus goals                                  | Goal (what the client wants to achieve with the result) vs. objectives (the goals of the portfolio/program/project manager)                                                           | t | t | t |
| b   | Value management                                         |                                                                                                                                                                                       | t | b |   |
| c   | Cost-conscious design                                    | Total cost of ownership<br>Balance between development costs and operating costs                                                                                                      | t | b |   |
| d   | Expectations, requirements, and acceptance criteria      | Explicit and implicit expectations<br>MoSCoW technique<br>Functional and technical requirements                                                                                       | t | t | t |
| e   | Program of requirements, specifications                  |                                                                                                                                                                                       | t | t | b |
| f   | Fit for use, fit for purpose                             |                                                                                                                                                                                       | b | b | b |
| CE  | Practice 3: Scope                                        |                                                                                                                                                                                       |   |   |   |
| V31 | Scope and delimitation                                   |                                                                                                                                                                                       |   |   |   |
| a   | Scope definition                                         |                                                                                                                                                                                       | t | t | t |
| b   | Scope creep                                              |                                                                                                                                                                                       | t | t | t |
| V32 | Product decomposition                                    |                                                                                                                                                                                       |   |   |   |
| a   | Work breakdown structure (WBS/PBS)                       | Structure coding<br>WBS dictionary                                                                                                                                                    | t | t | t |
| b   | Product flow chart                                       | PBS, Swim lanes                                                                                                                                                                       | t | t | t |
| c   | Work breakdown structure (WBS/PBS) (extended)            | Control point, planning package, and work package                                                                                                                                     | t | t | t |
| V33 | Configuration management                                 |                                                                                                                                                                                       |   |   |   |

|            |                                                                             |                                                                                                                    |   |   |   |
|------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---|---|---|
| a          | Configuration management and configuration items                            | ISO 10007:2003 Configuration Management©                                                                           | t | t | t |
| b          | Configuration item records and configuration management database            |                                                                                                                    | t | t | t |
| c          | Configuration management plan                                               |                                                                                                                    | a | t | b |
| d          | (Configuration) baselines                                                   |                                                                                                                    | t | t | t |
| <b>CE</b>  | <b>Practice 4: Time</b>                                                     |                                                                                                                    |   |   |   |
| <b>V41</b> | <b>Planning and phasing</b>                                                 |                                                                                                                    |   |   |   |
| a          | Graphic techniques                                                          | Gantt charts, roadmaps, Kanbans, Precedence charts, flow charts, and activity lists.                               | a | t | t |
| b          | Precedence chart                                                            | Critical path method<br>Total slack<br>Finish-Start scheduling constraint                                          | a | t | t |
| c          | Other scheduling restrictions                                               | Planning constraints Start-Start, Start-Finish, Finish-Finish<br>ALAP/ASAP<br>lead, lag<br>Free slack              | b | b |   |
| d          | Milestones, portfolio cycles, tranches, phases, and decision points         |                                                                                                                    | a | t | b |
| e          | Phasing models                                                              | Linear phasing (waterfall), version phasing, development phasing, parallel phasing, timeboxing, subproject phasing | a | t | b |
| f          | Shortening the schedule                                                     | Crashing, fast tracking                                                                                            | t | t | t |
| <b>CE</b>  | <b>Practice 5: Organization and information</b>                             |                                                                                                                    |   |   |   |
| <b>V51</b> | <b>Project organization</b>                                                 |                                                                                                                    |   |   |   |
| a          | Client/contractor principle                                                 |                                                                                                                    | b | b | b |
| b          | Principle of separation of technology and management                        |                                                                                                                    | b | b | b |
| c          | Project organization, project management team, project management structure |                                                                                                                    | a | t | t |
| d          | Roles and role descriptions                                                 |                                                                                                                    | a | t | t |
| e          | Consultative structures                                                     |                                                                                                                    | t | t | t |
| f          | Responsibility matrix (RASCI model)                                         |                                                                                                                    | t | t | t |
| <b>V52</b> | <b>Information and management systems</b>                                   |                                                                                                                    |   |   |   |
| a          | Information versus data                                                     |                                                                                                                    | b | b | b |
| b          | Document management                                                         | Release levels, version management                                                                                 | t | t | t |
| c          | I/O matrix                                                                  |                                                                                                                    | t | t | t |
| d          | Information (management) plan                                               | Advice on appropriate information management systems                                                               | a | t | t |
| e          | Quality and security requirements for information and document management   | Legal requirements                                                                                                 | a | t | t |
| f          | File structure                                                              | Management and specialist files                                                                                    | t | t | t |
| <b>CE</b>  | <b>Practice 6: Quality</b>                                                  |                                                                                                                    |   |   |   |
| <b>V61</b> | <b>Quality</b>                                                              |                                                                                                                    |   |   |   |
| a          | Process and product quality                                                 |                                                                                                                    | b | b | b |
| b          | Validation and verification                                                 |                                                                                                                    | t | t | t |

|            |                                                  |                                                                                                                                                                                                                                                    |   |   |   |
|------------|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| c          | Quality management system                        | Advice on appropriate systems, methods, and techniques                                                                                                                                                                                             | t | t | b |
| d          | 7 basic quality tools                            | Run chart, histogram, fishbone diagram, Pareto analysis, control chart, scatter diagram, flowchart                                                                                                                                                 | t | t | t |
| e          | Quality costs (according to Juran)               | Conformance & non-conformance cost                                                                                                                                                                                                                 | b | b |   |
| <b>V62</b> | <b>Quality assessment, audit, and evaluation</b> |                                                                                                                                                                                                                                                    |   |   |   |
| a          | Review, audit, and evaluation                    | audit (process quality) and evaluation (after delivery)                                                                                                                                                                                            | t | t | b |
| b          | Inspection methods and techniques                | Recommending appropriate techniques                                                                                                                                                                                                                | b | b |   |
| c          | Testing                                          | Knowledge of standard testing methods and techniques                                                                                                                                                                                               | b | b | b |
| d          | Quality logbook, test register                   |                                                                                                                                                                                                                                                    | a | t | t |
| <b>CE</b>  | <b>Practice 7: Finance</b>                       |                                                                                                                                                                                                                                                    |   |   |   |
| <b>V71</b> | <b>Cost estimate</b>                             |                                                                                                                                                                                                                                                    |   |   |   |
| a          | Cost breakdown (CBS)                             | Including cost components, cost items, and cost types                                                                                                                                                                                              | a | t | t |
| b          | Link between CBS and WBS and OBS                 | Control accounts                                                                                                                                                                                                                                   | t | t | t |
| c          | Responsibility Assignment Matrix (RAM)           |                                                                                                                                                                                                                                                    | t | b |   |
| d          | Reserves                                         | Contingency and management reserves; risk budget, change budget, contingency fund, margin, tolerance                                                                                                                                               | a | t | b |
| <b>V72</b> | <b>Cost management</b>                           |                                                                                                                                                                                                                                                    |   |   |   |
| a          | Administration and power of attorney             |                                                                                                                                                                                                                                                    | a | t | t |
| b          | Coordination with business administration        |                                                                                                                                                                                                                                                    | a | t | t |
| c          | Monitoring budgets                               |                                                                                                                                                                                                                                                    | a | t | t |
| d          | Reporting standards                              |                                                                                                                                                                                                                                                    | a | t | t |
| e          | Cost control                                     |                                                                                                                                                                                                                                                    | a | t | t |
| f          | Financial obligations                            | Liability administration                                                                                                                                                                                                                           | t | t | b |
| <b>V73</b> | <b>Project financing</b>                         |                                                                                                                                                                                                                                                    |   |   |   |
| a          | Financing                                        | Internal and external financing; risk-bearing and non-risk-bearing financing options                                                                                                                                                               | t | b |   |
| b          | Financial control and liquidity planning         |                                                                                                                                                                                                                                                    | t | b | b |
| <b>CE</b>  | <b>Practice 8: People and resources</b>          |                                                                                                                                                                                                                                                    |   |   |   |
| <b>V81</b> | <b>Capacity management</b>                       |                                                                                                                                                                                                                                                    |   |   |   |
| a          | Resource planning, allocation, and management    |                                                                                                                                                                                                                                                    | a | t | t |
| b          | Leveling and smoothing                           | Resource leveling is the adjustment of the start and end dates of a project to take into account limited resources (effect on the critical path).<br>Resource smoothing is adjusting activities so that the work can be completed according to the | a | t | t |

|      |                                                         |                                                                                                                                                        |   |   |   |
|------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
|      |                                                         | existing timelines (no effect on the critical path).                                                                                                   |   |   |   |
| c    | Capacity plan                                           | The capacity plan is a plan for the deployment of people and resources (excluding money).                                                              | a | t | t |
| d    | Critical chain method                                   | Theory of constraints – Goldrath: Student syndrome, Parkinson's law and multitasking, project buffers and feeding buffers                              | b | b |   |
| CE   | Practice 9: Purchasing                                  |                                                                                                                                                        |   |   |   |
| V91  | Procurement                                             |                                                                                                                                                        |   |   |   |
| a    | Make or buy: analysis and decision-making               | Buy or outsource<br>Role of business strategy                                                                                                          | a | t | b |
| b    | Procurement strategy and contracting plan               |                                                                                                                                                        | t | b |   |
| c    | Procurement process                                     | Longlist, shortlist<br>Selection and award criteria<br>Relationship between project and purchasing department                                          | a | t | b |
| d    | RFI, RFP, RFQ                                           |                                                                                                                                                        | t | b | b |
| e    | Letters of intent and preliminary agreements            |                                                                                                                                                        | t | t | b |
| f    | Partnerships                                            | Consortium, comakership, general partnership, back-to-back agreement                                                                                   | b | b |   |
| g    | European tendering                                      | European Public Procurement Guidelines: principles, sectors, threshold amounts, procedures, selection and award criteria, sanctions for non-compliance | b | b |   |
| V92  | Agreements                                              |                                                                                                                                                        |   |   |   |
| a    | Contract types                                          |                                                                                                                                                        | b | b | b |
| b    | Standard contract articles                              | General terms and conditions                                                                                                                           | t | t | b |
| c    | Obligation to perform and obligation to achieve results |                                                                                                                                                        | b | b | b |
| d    | Bank guarantees and letters of credit                   |                                                                                                                                                        | b | b |   |
| e    | Contract management                                     | Monitoring of contract terms                                                                                                                           | t | t | b |
| f    | Claim management                                        | Processes, methods, and resources                                                                                                                      | b | b |   |
| CE   | Practice 10: Planning and control                       |                                                                                                                                                        |   |   |   |
| V101 | Preparation                                             |                                                                                                                                                        |   |   |   |
| a    | Project mandate and project application                 | Process support                                                                                                                                        | t | t | t |
| b    | Project assignment (draft project management plan)      |                                                                                                                                                        | t | t | b |
| c    | Project decision                                        | Conduct final review                                                                                                                                   | t | t | b |
| V102 | Final phase                                             |                                                                                                                                                        |   |   |   |
| a    | Start-up workshop and kick-off meeting                  | Facilitation                                                                                                                                           | t | t | t |
| b    | Project management plan                                 |                                                                                                                                                        | t | t | t |
| c    | Setting up project support                              |                                                                                                                                                        | a | t | t |
| d    | Project assessment, decision                            | Conduct final review                                                                                                                                   | t | t | t |
| V103 | Estimation methods                                      |                                                                                                                                                        |   |   |   |

|                                   |                                                                     |                                                                                                                                                                                                                                                                                                           |   |   |   |
|-----------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| a                                 | Gross-net (available) capacity                                      |                                                                                                                                                                                                                                                                                                           | a | t | t |
| b                                 | Estimation methods                                                  | Single or multi-expert estimates (Delphi method), equal bet, velocity analysis, planning poker, historical data, analogies, effort models, parametric estimates (e.g., function point analysis in software development), and three-point estimates (e.g., PERT).                                          | a | t | b |
| c                                 | Uncertainty analysis                                                | PERT (mean and standard deviation), z-table<br>Monte Carlo analysis                                                                                                                                                                                                                                       | a | t |   |
| <b>V104 Control and reporting</b> |                                                                     |                                                                                                                                                                                                                                                                                                           |   |   |   |
| a                                 | Management by Objectives                                            | Setting SMART goals                                                                                                                                                                                                                                                                                       | b | b | b |
| b                                 | Management 'by Exception'                                           | Tolerances and Escalations                                                                                                                                                                                                                                                                                | t | t | b |
| c                                 | Controlling a phase or the project                                  | Exception procedure                                                                                                                                                                                                                                                                                       | t | t | b |
| d                                 | Deming's management cycle (Plan-Do-Check-Act)                       |                                                                                                                                                                                                                                                                                                           | t | t | t |
| e                                 | Management and reporting levels                                     |                                                                                                                                                                                                                                                                                                           | t | t | t |
|                                   | <b>Management and reporting tools:</b>                              |                                                                                                                                                                                                                                                                                                           |   |   |   |
| f                                 | Earned Value Analysis                                               | Planned value (PV/BCWS), earned value (EV/BCWP), actual cost (AC/ACWP), cost variance (CV), cost performance index (CPI), schedule variance (SV), schedule performance index (SPI), budget at completion (BAC), estimated cost at completion (EAC), estimated cost to complete (ETC), Percentage complete | a | t |   |
| g                                 | Slip charts                                                         | Burndown charts                                                                                                                                                                                                                                                                                           | t | t | t |
| h                                 | Various reports                                                     | Progress report, final report, deviation report, learning points report                                                                                                                                                                                                                                   | a | t | t |
| <b>V105 Change management</b>     |                                                                     |                                                                                                                                                                                                                                                                                                           |   |   |   |
| a                                 | Changes and project issues                                          |                                                                                                                                                                                                                                                                                                           | t | t | t |
| b                                 | Change procedure and issue register                                 |                                                                                                                                                                                                                                                                                                           | a | t | t |
| c                                 | Change authority and change budget                                  | Advising on the establishment of an overarching change advisory board                                                                                                                                                                                                                                     | a | t | b |
| d                                 | Priority and urgency                                                |                                                                                                                                                                                                                                                                                                           | a | t | b |
| e                                 | Relationship between change management and configuration management | ISO 10007©                                                                                                                                                                                                                                                                                                | t | t | b |
| <b>V106 Closure</b>               |                                                                     |                                                                                                                                                                                                                                                                                                           |   |   |   |
| a                                 | Transfer of final result                                            | handover protocol), including as-built documents                                                                                                                                                                                                                                                          | t | t | t |
| b                                 | Evaluation                                                          | Facilitation                                                                                                                                                                                                                                                                                              | t | t | t |
| c                                 | Winding down                                                        | Identify/recommend follow-up actions, including post-investment assessment<br>Clean up, close, and transfer project file                                                                                                                                                                                  | t | t | t |

|      |                                                                      |                                                                                                                                                                                                                                                                                                                                                                     |   |   |   |
|------|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| d    | Closure and discharge                                                |                                                                                                                                                                                                                                                                                                                                                                     | t | t | t |
| CE   | Practice 11: Risks and opportunities                                 |                                                                                                                                                                                                                                                                                                                                                                     |   |   |   |
| V111 | Risk management: concepts, definitions, and categories               |                                                                                                                                                                                                                                                                                                                                                                     |   |   |   |
| a    | Distinguishing between risks/opportunities and issues                |                                                                                                                                                                                                                                                                                                                                                                     | b | b | b |
| b    | Distinguish between risks/opportunities and uncertainty in estimates |                                                                                                                                                                                                                                                                                                                                                                     | b | b | b |
| c    | Risk exposure, willingness, aversion, and tolerance                  |                                                                                                                                                                                                                                                                                                                                                                     | b | b | b |
| d    | Opportunity/risk owner and opportunity/risk action holder            |                                                                                                                                                                                                                                                                                                                                                                     | b | b | b |
| e    | Probability, impact, and horizon                                     |                                                                                                                                                                                                                                                                                                                                                                     | b | b | b |
| f    | Risk and opportunity categories                                      | Internal and external risks and opportunities<br>Project and business risks and opportunities                                                                                                                                                                                                                                                                       | t | t | b |
| V112 | Risk management framework                                            |                                                                                                                                                                                                                                                                                                                                                                     |   |   |   |
| a    | Risk management processes                                            | Risk management standard ISO 31000©                                                                                                                                                                                                                                                                                                                                 | a | t | b |
|      | Risk and opportunity measures:                                       |                                                                                                                                                                                                                                                                                                                                                                     |   |   |   |
| b    | • The 8 risk measures (in ICB4 section 4.5.11.4)                     | <ul style="list-style-type: none"> <li>• avoid</li> <li>• accept/increase the risk to take advantage of an opportunity</li> <li>• removal of the source of risk</li> <li>• reducing the probability</li> <li>• reducing the consequences/impact</li> <li>• sharing the risk with another party</li> <li>• accepting the risk</li> <li>• contingency plan</li> </ul> | t | t | t |
| c    | • The 4 contingency measures (in ICB4 par. 4.5.11.4)                 | <ul style="list-style-type: none"> <li>• seizing the opportunity</li> <li>• sharing the risk with a third party</li> <li>• increasing probability and/or impact</li> <li>• ignoring</li> </ul>                                                                                                                                                                      | b | b |   |
| d    | Inherent, residual, and secondary risk                               |                                                                                                                                                                                                                                                                                                                                                                     | t | t | b |
| V113 | Risk management techniques                                           |                                                                                                                                                                                                                                                                                                                                                                     |   |   |   |
| a    | Risk and opportunity register                                        |                                                                                                                                                                                                                                                                                                                                                                     | a | t | t |
| b    | Risk and opportunity identification techniques                       | Risk decomposition structure, fishbone diagram/cause and effect diagram, pre-mortem analysis                                                                                                                                                                                                                                                                        | a | t | b |
| c    | Risk and opportunity assessment techniques                           | Monte Carlo, scenario planning, sensitivity analysis, decision tree, expected monetary value<br>Probability calculation and statistical techniques                                                                                                                                                                                                                  | t | t | b |
| CE   | Practice 12: Stakeholders                                            |                                                                                                                                                                                                                                                                                                                                                                     |   |   |   |
| V121 | Stakeholder analysis and stakeholder management                      |                                                                                                                                                                                                                                                                                                                                                                     |   |   |   |

|      |                                                            |                                                                                                                           |   |   |   |
|------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---|---|---|
| a    | Analyzing stakeholders                                     | Identify stakeholders, recognize mutual relationships, analyze interests and influence, determine relationship to project | t | t | t |
| b    | Stakeholder management strategy and communication plan     |                                                                                                                           | t | t | b |
| c    | Involving stakeholders                                     | Inform, maintain interest, actively consult, actively involve                                                             | a | t | t |
| CE   | Practice 13: Change and transformation                     |                                                                                                                           |   |   |   |
| V131 | Organizational change                                      |                                                                                                                           |   |   |   |
|      | Change management theories:                                |                                                                                                                           |   |   |   |
| a    | Kotter's 8-step model for change                           |                                                                                                                           | b | b |   |
| b    | Diffusion of innovations - Rogers                          |                                                                                                                           | b |   |   |
| c    | Learning styles for individuals, groups, and organizations | Disciplines of the Learning Organization/The Fifth Discipline - Senge                                                     | b | b | b |
| d    | Dealing with resistance                                    | Survival Anxiety Learning Anxiety - Schein<br>Change paradigms - De Caluwe / Vermaak                                      | t | t | b |