



Different Applications

DIFFERENT APPLICATIONS OF THE INTERACTIVE WICKEDNESS ASSESSMENT TOOL

► PURPOSE OF THE TOOL

The interactive ‘Wickedness Assessment Tool’ is a supportive graphic instrument for structuring a group communication and deliberation process. It supports efforts geared towards *jointly* achieving a better understanding of the complexities, ambiguities, driving forces and dynamics underlying a particular societal issue. Developing deeper insights about the nature, interlinkages and dynamics of the problem is a key prerequisite for thinking more realistically about possible interventions and solution-oriented approaches.

The interactive assessment tool aims to facilitate a group of individuals, as a whole, in grasping the ‘wickedness intensity’ of a specified societal issue. It allows each individual group member to appraise the issue’s degree of complexity along ten distinct complexity dimensions (10 ‘multi-s’). The overall group assessment outcome that results from pulling together individual complexity scores subsequently forms the input for engaged group conversation, structured along the lines of a chosen (working) group interaction and deliberation method – such as peer review feedback, inter-rater reliability approaches, sociocratic deliberation methods for reaching consent, or Delphi-inspired methods for developing consensus.

► HOW DOES THAT WORK?

Each group member’s individual score (1–7) on each of the ten complexity scales will be displayed in an automatically generated (and downloadable) group spider web chart. Differences and commonalities between all group members’ individual scores on each of the ten complexity scales will become instantly visible, ready to be used as input for structured group conversation on underlying considerations, assumptions, information and knowledge sources that explain for the differences in individual assessments. Sharing knowledge, exchanging experiences and sharpening arguments in group discussion can help individuals to fill in some of their initial blind spots by tapping into the group’s ‘collective intelligence’. On the basis of gained insights from the replies of other group members, individual members may choose to reconsider their initial scores in a next issue assessment round (*assess–talk–re-assess*).

Structured conversation on *diverging* complexity scores enables a process of jointly identifying those indistinct aspects of the issue that require a (focused) search for additional information, the inclusion of complementary types of knowledge (e.g., situated, contextual, experiential), or the involvement of additional disciplines and professions (so as to include specific academic, functional or vocational angles). Highly divergent scores may also indicate the need for a more

precise or more *contextualized* issue description. For instance, by geographically demarcating the issue to the level of a particular country, region, municipality or population; by defining a relevant time horizon (e.g. by the year 2030) or by specifying a specific target or stakeholder group.

The interactive Wickedness Assessment Tool can be perfectly used to facilitate successive rounds of issue assessment (*assess–talk/reconsider–re-assess*). Iterative rounds of generating a group spider web chart enable a comparison of (individual and total) scores displayed in the most recent chart with scores in previous charts. In this way, users can visibly check whether individual scores eventually reflect a higher degree of convergence – or not – on the ten separate complexity scales after (n-rounds of) substantive group discussion, additional information gathering, and/or further issue specification and contextualization.

It is important to realize that using the interactive Wickedness Assessment Tool does not create ‘evidence’. Rather, it provides its users with a stepping stone for (a) collectively identifying those problem areas that require deeper investigation and analysis to come to grips with them, and (b) for scoping entries and options for appropriate intervention approaches (see Chapters 4 and 5 of the book). The tool fosters a more granulated understanding of an issue’s complexity intensity, which should help prevent its users from defining oversimplified approaches to inherently complex problem domains, or overly complicated approaches to relatively simple aspects of it.

► DIFFERENT METHODS FOR ORGANIZING ‘COLLECTIVE INTELLIGENCE’

With complex societal issues, a diverse collection of independently deciding individuals is likely to make more accurate predictions and better judgements than individual experts can. The many tend to know more than the few, and a collective can be more intelligent than its smartest member – provided that diversity and independence are embraced and adequately managed. Sharing (heterogeneous) knowledge, exchanging experiences and collaboratively accumulating information in order to come to more precise assessments, are an essential part of dealing with wicked problems. Commonly-used techniques for harnessing ‘collective intelligence’ as a way to reduce prevalent ambiguity and uncertainty, include:

- Inter-rater reliability and peer review methods
- Wisdom of the crowd-inspired methods
- Sociocratic deliberation methods
- Delphi-inspired methods

■ **Inter-rater reliability (IRR)** is a measure of the consistency and agreement between multiple independent ‘raters’ (in the literature also referred to as observers, judges, assessors, coders) who assess the same phenomenon. The technique is commonly used to quantify constructs of interest that cannot be objectively scored in a simple right/wrong sense but, instead, require a judgment of the degree to which a specified phenomenon can be observed, or anticipated, at a certain level – for instance, on a 1–7 rating scale. As each independent rater/observer is likely to have their own interpretation of the phenomenon under assessment, scoring will always include a certain degree of subjectivity. IRR provides a way of (statistically) determining the extent to which different raters come to similar or consistent scoring results. High inter-rater reliability indicates that the assessors are consistent in their judgements; low inter-rater reliability suggests that the independent observers have different interpretations, use different criteria or include different

information sources in evaluating the same phenomenon. Achieving high inter-rater reliability is important for enhancing the credibility and validity of evaluation results conducted by different raters. Discussing significant differences in individual scoring outcomes – and engaging in one or more rounds of reconsideration and reassessment – thus adds value to an initial assessment outcome and, therefore, can be considered an inherent element of conducting sound multiple-raters assessment processes.

■ **Peer review** is the evaluation of work by one or more people with similar competencies as the producer(s) of the work. Peer review methods are typically used to maintain quality standards, improve performance and provide credibility – as a *self-regulatory* and gatekeeping practice by qualified members of a particular profession or area of expertise. Peer review can also provide an important means for fostering ‘peer learning’ and ‘collaborative learning’, as a *formative* practice. Engaging in peer assessment then implies that peers participate in – and actively contribute to – a joint process of providing constructive feedback and collegial suggestions for improvement to their co-students, co-researchers or co-working professionals, in an effort to enhance the group’s level of skill, knowledge, performance, quality or credibility of (combined) findings and results.

■ **‘Wisdom of the crowd’** is the collective opinion of a diverse and independent group of individuals – as opposed to the judgement of a single expert. It refers to the notion that ‘the many’ tend to be smarter than ‘the few’,¹ and that the aggregate of a set of proposed solutions or decisions from a group of individuals tends to perform better than the majority of individual solutions or decisions. Compared to consulting the professional judgement, prediction or forecast of individual experts, consulting the (relatively uninformed) crowd would be more objective and reliable in producing accurate aggregate value judgements. Combining individual forecasts has repeatedly been found to render results that are close to the true underlying value. For ‘crowd intelligence’-sourcing methods to work correctly and produce ‘wise’ outcomes, several key preconditions must be met. These include: the *diversity* of the crowd so as to ensure variance in approach, in thought processes, in backgrounds and interests, and in private information (e.g. information ‘bubbles’); their *independence* from each other in order to ensure autonomous opinion-forming and decision-making that is free from peer pressure; their *decentralisation* in order to ensure access to widely-distributed, contextualized and local knowledge; and using sound methods of *aggregating* their distributed knowledge into collective judgements or decisions.

■ **Sociocratic methods** relate to group sense-making and deliberation processes in which each group member has a responsibility for contributing to effective group decision-making, based on *equal participation* organized in working groups (or in a larger structure of self-correcting and self-regulating semi-autonomous ‘circles’). Sociocratic methods are founded on the notion of informed *consent*, rather than on achieving consensus (full agreement) as a goal in itself. Consent holds that – after having processed the relevant information, after having raised and discussed questions and concerns, and after having integrated sensible amendments to the initial proposition – no member has a remaining argued or paramount objection to be resolved. The final outcome of the group’s participative deliberation process then lies within each member’s *range of tolerance*,

¹ Surowiecki, James (2004). *The Wisdom of Crowds. Why the many are smarter than the few and how collective wisdom shapes business, economies, societies and nations*. New York: Anchor Books.

considered to be ‘good and safe enough’ – at the present stage – to try.² In other words, for reaching consensus, the ultimate question to each participating member is ‘do you agree’. For reaching consent, the central question is ‘do you object, and why’.³ *Objections* are thereby understood as reasoned arguments – relating to a proposal, activity, tension point or state of affairs – that reveal consequences or relevant risks that could affect the group’s aim, or that demonstrate worthwhile ways to improve.

In sociocratic approaches, well-reasoned objections are considered as valuable input and an opportunity for incorporating different angles and experiences, alternative options and (partial) modifications. Ultimately, this should result in better decisions and more acceptable and balanced outcomes. To this end, sociocratic deliberation techniques generally accommodate some form of ‘*objection harvesting*’ rounds early in the process. Focusing on concerns as well as on clarifying questions and apparent misunderstandings early on results in more efficient decision-making. In addition to *equivalence* and *consent*, sociocratic approaches to collaborative sense-making, deliberation and decision-making include principles of *empiricism*, *intentionality*, *distributive leadership*, *continuous improvement*, *transparency*, *accountability* and *effectiveness*.

■ **Delphi-inspired methods.** The Delphi-method is a structured, iterative, anonymous, group-based deliberation process and elicitation technique that helps to make decisions under conditions of uncertainty and incomplete information.⁴ Originally, Delphi was developed as a method for forecasting difficult-to-predict impacts of science and technology and for assessing the direction of long-term trends, to inform (public) policymaking. The method is now widely used to solicit the professional opinion from a panel of *selected experts*, as a way to identify areas of *agreement* (consensus) and *disagreement* related to a specified topic of interest. The Delphi-method is based on the premise that forecasts, assessments or decisions from a structured group of knowledgeable individuals are more accurate and reliable than those from unstructured groups or from a single expert. Delphi-based techniques facilitate that individual panelists – who may be from different professional or disciplinary backgrounds, representing different (stakeholder)groups and different viewpoints – all have an equal voice in creating a consensus. By asking experts the same questions several times and sharing the anonymous answers with the other panelists, responses can be compared, re-evaluated (and optionally discussed) and reconfirmed or revised. During this process, additional information may be gathered and provided to all panelists, for instance in the form of extant research evidence. After several rounds, responses will eventually stabilize and converge around common outcomes.

Since the creation of the ‘classical’ Delphi-method in the late 1940s–early 1950s, variants have been developed to meet the forecasting and assessment needs of different decision-makers. Modifications to the traditional technique include: the distribution of pre-reading materials to panelists; in-person or virtual meetings before, during or after each assessment round (making participation *not* anonymous); the incorporation of focus groups and other qualitative methods; the integration of multi-dimensional scaling; the use of (real-time) online survey conferences and discussion forums. The ‘policy-Delphi’ variant, for instance, deliberately focuses on exploring a range of opinions on a given policy topic, goal or issue, with the objective of identifying divergent views and potential solutions to pressing policy problems that stakeholders with

² <https://sociocracy30.org/resources/#se-practical-guide>

³ <https://www.sociocracyforall.org/sociocracy/>

⁴ See, for instance, Khodyakov, D., Grant, S., Kroger, J. & Bauman, M. (2023). *RAND Methodological Guidance for Conducting and Critically Appraising Delphi Panels*. <https://doi.org/10.7249/TLA3082-1>.

different perspectives can agree on. Policy-Delphi has been found helpful for identifying intended and unintended consequences of policy change and in fostering more transparent (public) policy-making, provided that the panelists selected are informed people representative of (a) the many sides of the issues under examination and (b) the wide variety of affected parties.⁵

► DIFFERENT APPLICATIONS FOR DIFFERENT PURPOSES

To work towards a more accurate assessment of the societal issue under scrutiny, the interactive Wickedness Assessment Tool can be used in various group awareness-raising, sense-making and deliberation methods and be incorporated in various process designs, serving different types of users and different purposes. The optimal application and function of the Wickedness Assessment Tool depends upon the user group, the organizational set-up and process stage in which the tool is introduced. The boxes below provide **examples of functions** for which the tool can be used, as well as some practical pointers and tips for apt application per user group. User groups include:

- Bachelor/undergraduate students
- Master/graduate students
- Practitioners (in diverse settings, including project/programme management, (multi-) stakeholder management, policymaking)

To prepare, it is advisable to first read Chapter 4 of ‘Principles of Sustainable Business’ in order to get acquainted with:

- The concept of ‘wicked problems’;
- Three different notions of ambiguity: ‘knowledge ambiguity’, ‘predictive ambiguity’ and ‘intervention ambiguity’;
- The five classes of complexity commonly at play with most societal issues (i.e., structural, generative, dynamic, communicative and societal complexity), as well as the logic of the ten distinct complexity dimensions (10 multi-‘s) derived thereof.

► **USER GROUP: BACHELOR/UNDERGRADUATE STUDENTS**

A. IN-CLASS QUICK SCAN WITHOUT PRIOR PREPARATION

Functions of using the tool

- Building awareness of complexity, in all its ten dimensions
- Creating tolerance for ambiguity
- Checking and reflecting on individual biases and implicit/explicit assumptions
- Experiencing the value of valuating an issue from multiple angles
- Identification of discussion points, based on highly diverging assessment scores
- Identification of areas for further research (those dimensions for which assessment scores show high divergence)
- Realization of the value of clear problem definitions

⁵ Turoff, M. (2002). ‘The Policy Delphi’. In: Linstone, H. & Turoff, M. (Eds). *The Delphi Method: techniques and applications*, pp. 80–90. Addison-Wesley, Reading, MA.

Pointers for application

- Follows a ‘**wisdom of the crowd**’-inspired philosophy (and by doing so, makes participants aware of the advantages and disadvantages of this method).
- In-class conversation on the collective results of the intuitive quick scan serves several didactical aims: it stimulates awareness of perception gaps and greater tolerance for ambiguity; it forces students to focus on more than a few problem dimensions; it potentially enables a relatively ‘neutral’ and ‘safe’ discussion on relevant aspects of a complex issue because the teacher reiterates that **there are no ‘right’ or ‘wrong’ answers**; the exercise helps identify those complexity dimensions that ‘the crowd’ in class interprets and/or scores differently and thus require further discussion, elaboration and additional research/information gathering.
- The ‘host’ of the tool is the teacher who prepares a slide showing: (1) a description of the issue/topic of assessment; (2) the link to the tool; (3) the ‘entry code’ for joining the session; and (4) the time allotted to the exercise (session duration).⁶
- The ‘host’ can prepare one session or several session codes, depending on the size of the class, the didactical aim, the number of subgroups envisaged and the number of issues selected.
- An in-class quick scan without students’ prior preparation can be particularly useful and instructive as a means to introduce – and collectively work with – each of the ten complexity dimensions (elaborated in Chapter 4 of the book).

Group size

- **In large groups** (10–100 participants): for reasons of clear and distinct graphic representation, the tool works best in groups with a maximum of 8–10 individuals (the session host included). For larger groups, it is advisable to work in parallel subgroups (of 6–8 participants) that all assess the same issue/topic. The overall results of the parallel subgroups can then be used in class to identify those complexity dimensions of the issue that require further plenary discussion. Additionally, a next round of parallel sessions can be organized to focus specifically on those dimensions with the greatest divergence in scoring results. A next assessment round will allow students to re-interpret, re-think and re-assess their scores, after having absorbed the in-class plenary discussion and the teacher’s (conceptual) clarifications.
- **In smaller groups** (4–6 participants): smaller groups allow for a more intense discussion on interpretations and individual scores. Here, the interactive tool can be used as an ‘exploratory’ frame to start a (sociocratic) conversation, to engage in successive rounds of *assessing–discussing–re-thinking–re-assessing* in order to check on the level informed consent that can be reached, and to identify problem areas that still require further information gathering/research.

Practical tips

- **Tip 1:** in-class use of the tool *without preparation* works particularly well when one selects an issue that students can immediately empathize with: (1) relating to their own situation: loneliness, stress, obesity, housing problems, student debt, generation gaps, youth unemployment, discrimination, addiction, gender equality, cost-of-living, etc. (2) linked to their own sense of urgency: climate change, biodiversity loss, poverty,

⁶ See the accompanying ‘[User Instruction](https://www.principlesofsustainablebusiness.nl/wp-content/uploads/2024/01/Tools_User-Instruction-Interactive-Wickedness-Assessment-Tool.pdf)’, which provides step-by-step guidance on how to operate the tool: https://www.principlesofsustainablebusiness.nl/wp-content/uploads/2024/01/Tools_User-Instruction-Interactive-Wickedness-Assessment-Tool.pdf

inequality of all sorts, pollution, artificial intelligence, animal welfare, living wages, corruption, deforestation, fossil fuels dependency, etc.

- **Tip 2:** Teachers can use the tool to ‘evaluate’ the impact of the course on students’ awareness: at the start of the course and at the end of the course, by documenting changes in the receptivity to complexity and ambiguity with individual participants. For instance, in a written assignment individual (or small groups of) students can be asked to reflect on how, why and based on what type of information/insights they came to change their initial view on their subject of assessment. By including both their initial and final spider-web chart with scores on the ten complexity dimensions, shifts in students’ understanding of the topic can be visually corroborated.

B. IN-CLASS SCAN WITH PREPARATION, ORGANIZED IN PARALLEL GROUPS

Functions of using the tool

- Application of complexity thinking
- Checking on available sources of information and biases in source selection
- Reasoned discussion on differences and commonalities in assessment outcomes
- Experiencing the dynamics of inter-rater reliability processes
- Working towards informed consent (if and where possible)
- Input for writing a (more critical and well-substantiated) essay on the issue

Pointers for application

- Uses the tool as part of **inter-rater reliability** and **formative peer review** tests, and implicitly functions as a collegial ‘check’ on whether all participants have adequately prepared for the session (a requirement for engaging meaningfully in substantive discussion and receiving/providing constructive feedback/feedforward).
- Each group chooses, or is assigned, a topical societal issue to read about, gather information on, and assess along all ten complexity dimensions.
- Requires that each group participant has individually filled-out [Scoreboard #1 to prepare](#), and brings this to class.
- The ‘host’ of the tool is an **appointed group member** who initiates an interactive assessment session by (1) entering the description of the issue; (2) providing group members with the generated ‘session code’ for joining the session; and (3) setting the session duration time.⁷ Each group’s assessment outcome is the input for subsequent intra-group discussion, following sociocratic principles. Each group can be asked to report about their findings.
- **Intra-group learning and inspiration:** explaining the backgrounds of information sources selected and conceptual interpretations used can inform/inspire fellow participants to search beyond initially consulted sources and fields of knowledge. It helps students re-interpret, form better judgement on specific complexity dimensions, and search for additional information available (of which one was unaware of earlier).
- **Inter-group comparison and learning:** in-class discussion on scores per complexity dimension can show that – even after having reached consensus within one group – other groups reflecting on the same topic can still come to different assessment

⁷ See the accompanying ‘[User Instruction](#)’, which provides step-by-step guidance on how to operate the tool: https://www.principlesofsustainablebusiness.nl/wp-content/uploads/2024/01/Tools_User-Instruction-Interactive-Wickedness-Assessment-Tool.pdf

outcomes. A plenary in-class discussion can then focus on what might explain for the differences (e.g. different sources, conceptual ambiguity, different understandings of each complexity category, perception biases) in a neutral and instructional manner.

Practical tips

- **Tip 1:** in case of highly divergent scores on most (>6) of the ten complexity scales, consider whether the research question/issue description is sufficiently clear and/or contextualized; reformulate the issue and check whether a second assessment round results in more congruent scores.
- **Tip 2:** in case of highly congruent scores on most (>6) complexity scales, consider whether group members share particular presumptions/biases on the topic, either in personal opinion, similar backgrounds or due to the use of a limited amount of information sources; what happens when other sources from different fields of knowledge are included, or when one person in the group takes the role of ‘the devil’s advocate’?

C. AS PART OF A GROUP ASSIGNMENT

Functions of using the tool

- Input for joint poster presentation
- Input for individual critical reflection on group dynamics and on how peer review and sociocratic methods affect individual and group learning processes.

Pointers for application

- Especially in the explorative stages of a group project, the tool can be a valuable thoughts- and discussion-structuring (graphic) aid. In subsequent stages, the distinct complexity dimensions can also be helpful for task division: who will deepen what complexity dimension(s) in order to come to more precise, multi-angled issue analysis.
- **Identifying areas of contention:** in case of sustained disagreement on diverging complexity scores – even after several rounds of discussion and re-assessment – the tool helps to identify ‘areas of contention’. Exactly these aspects deserve to be made explicit in a presentation as ‘focal points’ for further research. The grounds, interaction dynamics, source references and exchanged arguments (‘objections’) that resulted in ‘non-consent’ can be further substantiated and reflected upon in an essay.

Practical tips

- **Tip 1:** Document the following: to what extent have you been able to reach consent? What areas for further information gathering and research have you identified? What next steps would you prioritize, considering the level and nature of agreement/disagreement in group discussions?
- **Tip 2:** For examples of how the wickedness assessment tool can be used in compiling an SDG-poster, visit <https://www.principlesofsustainablebusiness.nl/posters/sdg-posters/>. For pointers and practical guidance on how to create an SDG-poster, see https://www.principlesofsustainablebusiness.nl/wp-content/uploads/2023/11/Posters_SDG-Poster-Instructions_students.pdf.

A. IN-CLASS QUICK SCAN

Functions of using the tool

- Application of complexity and wicked problems thinking
- Building awareness of the relevance of multi-dimensional analysis
- Creating sensitivity to biases in information and source selection
- Awareness of the various ambiguities that contribute to the wickedness of issues
- Identification of discussion points and areas of contention

Pointers for application

- Application of ‘**wisdom of the crowd**’-inspired and **inter-rater reliability** approaches at master /graduate level can be made more theoretical/conceptual and less intuitive than with an undergraduate group of students.
- Ideally, students’ preparation is more solid, directed at developing a more profound understanding of complexity-, systems- and (2nd generation) wicked problems thinking, and how this translates into the ten wickedness assessment scales (for which Chapter 4 should be mandatory reading). Students individually fill out [Scoreboard #1](#) and bring this to class.
- Diverging scoring results provide input for a more intellectual in-class discussion on: (a) the three types of ambiguity (knowledge ambiguity, predictive ambiguity, intervention ambiguity) inherent to most societal issues (see Chapter 4), and (b) their consequences for dealing with five classes of complexity (structural, generative, dynamic, communicative and societal complexity).
- All pointers and tips on how to use the tool in class with undergraduate students – either with or without prior preparation – also apply to the graduate user group.

B. AS PART OF A GROUP ASSIGNMENT

Functions of using the tool

- Focused discussion on differences and commonalities in assessment outcomes
- Working with the dynamics of inter-rater reliability processes
- Working towards informed consent or consensus (if and where possible), identifying areas of contention and further research
- Input for writing a critical essay on the issue, and/or for a joint (poster) presentation

Pointers for application

- Uses the tool as part of getting students acquainted with the proper use of **inter-rater reliability** and **peer review** tests.
- Within-group discussions on overlapping/diverging scores at the graduate level can be expected to be founded on well-substantiated arguments, trends and statistics, trusted information sources and authoritative knowledge portals. Also, more focused attention is to be paid to (possible) differences in the interpretation of relevant concepts. This can help fellow participants to search for richer information sources and to re-think their initial scoring in a next assessment round.

- Sustained divergence in scoring outcomes might indicate that the issue description is too broad and non-specific to serve as a guiding research question. It is then advisable to reconsider the issue's demarcation, and to reformulate it in a more contextualized and precise manner (which is then followed by engaging in a new assessment round).
- All pointers on how to use the tool in group assignments with undergraduate students, also apply to the graduate user group.

Practical tips

- **Tip 1:** Develop 21st century skills. During their careers, most post-graduates can be expected to work in groups and/or lead groups (that they not necessarily created themselves). To be effective in a group of equals navigating a VUCA world, essential management skills include the capability to combine tolerance for ambiguity in dealing with complex issues with vital negotiation and collaborative skills.

C. AS PART OF A MASTER THESIS

Functions of using the tool

- As a structuring aid in the explorative stages of specifying your research topic
- As a method for eliciting expert assessments, or as part of an event study
- As foundation for alignment assessment (e.g. descriptive or prescriptive analysis of an organization's intervention/strategy/policy logic, its appropriateness and effectiveness)

Pointers for application

- The use of the tool for extended individual study – such as a master thesis – depends on the research stage (explorative stage, information gathering, data collection stage) and the unit of analysis adopted (e.g. from the angle of a specific issue or that of a specific organization).
- **Exploration stage:** searching for information on your research topic along each of the ten complexity dimensions can help you structure your thoughts and interests. Structured exploration and stock-taking may also yield first indications of apparent knowledge/information/data gaps, conceptual ambiguities and areas of (academic) contention. This will enable you to make better-informed complexity assessments for each dimension, to identify and demarcate relevant problem domains more precisely, and to further specify your leading research question. Which complexity dimensions lend themselves best to dive into and why? Which dimensions seem most relevant/promising/feasible for your preferred research design and method(s)? What knowledge gaps can your research efforts address and make a contribution to?
- **Using the wickedness assessment tool as a method:** the tool can be applied in the information gathering or data collection stages of your research design, for instance by organizing *expert assessments* (using a Delphi-inspired method) or a *focus group* (for qualitative purposes). Used in a well-considered *survey* design, [Scoreboard#1](#) can be instrumental in collecting (quantitative) scores in n>100 settings, for instance to analyze differences and commonalities in perceptions among larger groups of people (wisdom of crowds-related method). Combining qualitative and quantitative methods successively allows for more robust analysis.
- **As part of a (qualitative) event study:** the tool can be used as an analytical aid to structure the course of processes over time in order to make sense of developments, their dynamics and driving forces, and their diverse impacts (e.g. on a organization,

industrial sector, business network, stakeholder groups, systems). Events or ‘incidents’ offer a useful starting point or ‘window’ for studying change processes in a multi-dimensional way, and for identifying patterns and mechanisms that explain for the interplay between (exogenous and endogenous) factors and the direction, scope, scale, pace and nature of change. Event studies enable a holistic view and rich descriptions, and fit well with a case study approach.

- **As foundation for societal gap, alignment and resilience assessments:** uses one specific organization, branch or industry sector as the unit of analysis, and starts with an analysis of the nature of a triggering event that the organization/branch/sector is confronted with. How has the organization/branch/sector been responding to the triggering event, and with what positive/negative/nondescript (side-)effects? To what extent can the actions taken be considered adequate (e.g. proportional, responsible, effective), in view of the nature of the event and the degree of complexity involved (interventions at level 1, 2, 3 and 4). What does this imply for the longer-term resilience of the organization/branch/sector and its role and legitimacy in society (license to operate, scale and experiment)? What intervention logic/strategy/policy would you advise – why, and with what intended effect? ⁸

Practical tips

- **Tip 1: Exploration.** You may want to use the tool as a graphic aid to test yourself on shifts in your perception/estimation of the issue’s degree of complexity (at the start of exploration, in between, and at the end of your inventorisation). What do your assessment scores over time tell you about your progressed understanding of the topic’s multi-dimensional complexity? Did your gained insights lead to higher or lower scores, involving what dimensions in particular?
- **Tip 2: Alignment or ‘fit’ analyses.** Part II and Part III of the book (Chapters 4–12) offer a coherent and systematic sequence of frameworks that all build on ‘four levels’ of responsibilities, interventions, engagement strategies, spheres of influence and societal licenses, as well as their implications for establishing strategic and operational ‘fits’ to effectuate intended outcomes and impacts.

▶ USER GROUP: PRACTITIONERS

A. IN A PROJECT/PROGRAMME MANAGEMENT SETTING

Functions of using the tool

- As an organization-internal participatory approach for sense-making, awareness-building and deliberation
- As part of a double materiality analysis⁹
- Eliciting multi-disciplinary or cross-departmental (expert) assessment on a concrete problem domain
- Prioritization and demarcation of intervention pathways

⁸ For guidance and examples, see [Chapter 5 \(Box 5.4\)](#), [Scoreboard#2](#), and Chapter 7 in the book (cases 7.1–7.5).

⁹ The concept of ‘double materiality’ recognizes that companies and financial institutions must consider, manage and take responsibility for the actual and potential impacts of their decisions on people, society and the environment. Conversely, companies and financial institutions must also recognize and anticipate how societal issues can affect their value-creating operations, their financial wellbeing and their continuity in the short, medium and longer term.

Pointers for application

- Uses **sociocratic methods** and/or **Delphi-inspired techniques** to work towards a common understanding of the nature, dynamics, impact levels and demarcation of the problem domain among selected colleagues from relevant departments/ business units/ functional areas of management.
- **As part of double materiality analyses:** builds upon initial identification of those societal issues that are deemed ‘material’ to the organization. Each of these issues can subsequently be assessed along the tool’s ten complexity scales in order to investigate to what extent each issue may be evaluated differently from the perspective of various functional areas of management (e.g. finance, marketing, purchasing, strategy, communications) or from the viewpoint of geographically dispersed business units. The aim here is to:
 - ⇒ Identify possible *blind spots* of relevant yet underestimated or overlooked issue dimensions
 - ⇒ Identify *focal areas of ambiguity/contention* that require additional information gathering and research
 - ⇒ Detect diverging valuation of issue relevance and urgency so as to *align priorities*
 - ⇒ Pinpoint areas that need focused deliberation on levels of responsibility, spheres of control and influence, and intervention pathways to address anticipated risks and identified opportunities.

B. IN A MULTI-STAKEHOLDER SETTING

Functions of using the tool

- As an *inter-organizational* participatory approach for sense-making, awareness-building and deliberation
- As part of a reversed materiality analysis¹⁰
- Identification of perception/knowledge gaps and persistent ambiguities
- Identification of alignment challenges in establishing an effective issue-partnering fit

Pointers for application

- Uses the tool to facilitate a **sociocratic deliberation method**, to arrive at a shared understanding of the nature, dynamics, impacts and root causes of an issue, and to identify entries for collaborative approaches to effectively addressing it.
- Starts with stakeholder mapping: a selection of all relevant stakeholders that are – or preferably should be – involved in the issue at hand (see Box 12.4 in the book).
- Stakeholders can be gathered as part of organizing a ‘[Wicked Problems Plaza](#)’,¹¹
- Participants fill out [Scoreboard#1](#) before entering the multi-stakeholder conversation. This scoring can be based on an individual assessment of each individual participant. It could also reflect the overall scoring result of an internally-organized wickedness assessment exercise, organized prior to the multi-stakeholder gathering within each

¹⁰ A ‘reversed’ materiality approach implies a shift in perspective when considering materiality: from a company- or organization-centric perspective (inside-out orientation) to a societal perspective (outside-in orientation). Reversed materiality takes societal issues and societal needs – such as the SDGs – as the point of departure for strategic decision-making (see section 9.3.2 in the book).

¹¹ Partnerships Resource Centre (2016) *Wicked Problems Plaza: Principles and Practices for Effective Multi-Stakeholder Dialogue*. Rotterdam: Partnerships Resource Centre at RSM, Erasmus University.

participating organization (two-stages approach).

- The host opens the session by accumulating the input of all represented stakeholder groups – either the manual scoring, or by initiating an interactive wickedness assessment round. Based on the overall scoring results, perception and assessment gaps can be identified and related to the different viewpoints, insights and professional judgements from each specific stakeholder group (if and where relevant). This, then, is the input for a structured conversation/ dialogue, in which all representatives are invited to (a) elaborate on the backgrounds of their assessment; (b) exchange and discuss different interpretations and arguments; and (c) clarify the relevance of the information sources on which they found their valuation on.
- If and where desirable, a next assessment round on the issue can detect whether the exchange of information and substantiated arguments has led to convergence of scores and, if so, on which specific complexity dimensions.
- Assessment outcomes provide a starting point for successive explorations into realistic ‘Theories of Change’ (ToCs), promising intervention strategies that address identified risks and opportunities, and those collaborative approaches that would classify as ‘fit’ to address the issue’s complexity level.¹²

C. FOR POLICYMAKING

Functions of using the tool

- As a structuring aid in the explorative stages of defining the problem domain
- As a method for eliciting focused (multi-disciplinary) expert assessment
- As a method for establishing consensus on problem definition, delineating the scope and boundaries of responsibilities and spheres of control/influence
- As starting point for the conception of an appropriate intervention logic and for identifying relevant intervention pathways and opportunities.

Pointers for application

- The needs of policymakers – either working for a company, the government or a civil society organization – vary along the different stages of the policy cycle. Generally, this cycle goes through the following process: (1) issue identification and definition; (2) data, research and analysis; (3) policy formulation; (4) policy consultation; (5) policy adoption; (6) policy implementation; (7) policy monitoring and evaluation. This cycle should not be understood as a linear sequence of steps, but as a dynamic and iterative process with feedback loops that can affect all stages.
- Use of the tool can be particularly helpful in the explorative, scoping, sense-making and structuring phases of issue analysis (stage 1), as it facilitates processes aimed at gaining a better understanding of the nature, dynamics, root causes, interdependencies and potential impacts of an issue. Policies that do not reckon with these underlying forces and complexities, are flawed by default.
- Consensus and high inter-rater reliability are vital stepping stones for policymakers to build from. But it is equally important to pay attention to deviant scores: these could indicate potential controversies that may manifest themselves in later stages. Likewise,

¹² Frameworks and elaborations on sound ‘issue-partnering fit’ and partnership configurations that do not ‘overshoot’ or ‘undershoot’ the complexity of the societal challenge, can be found in sections 5.4.2–5.6 and Chapter 12 in the book. [Scoreboard#2](#) can be used as an aid to identify distinct roles and responsibility levels of market, state and civil society actors, and in considering ‘who should/could do what’.

persistent ambiguities point to a need for different/more/better information, additional data and conceptual clarification, thereby providing vital clues for stage 2 in the policy cycle (data, research, analysis).

- Scales 9 and 10 on societal complexity (multi-stakeholder and multi-responsibility) are instrumental in identifying those societal actors: (a) that should be involved in the formulation of policies; (b) that will be affected by their implementation; (c) that share a joint responsibility for addressing the issue; (d) that could frustrate policy adoption and implementation affecting their stakes; or (e) that are needed to seize the (societal and/or collaborative) opportunities that well-designed strategic approaches to the issue could create.¹³
- Effective use of the tool enables a further analysis of the roles and responsibility levels that policymakers should reckon with in identifying relevant intervention approaches. [Scoreboard#2](#) can be used as an analytical aid to identify distinct roles and responsibility levels of market, state and civil-society actors related to the issue, and in considering ‘who should/could do what’.

¹³ Chapter 5 in the book explains how a good understanding of all complexity dimensions of the issue at hand may also reveal potential opportunities for creating ‘societal value’ and for seizing ‘collaborative advantage’, which can result from addressing the issue effectively in ‘fit-for-purpose’ partnerships with relevant societal actors. Chapter 12 elaborates on strategic and operational principles for collaborative approaches to societal issues in more detail.