What is the TOE framework?

The TOE framework is a framework to grasp project complexity: to create awareness of potential project complexities that could be encountered in the project (in the near future). The framework is to be used in early project phases, preferably by the project team rather than just the project manager and preferably more often than just at the beginning, since project complexity is a) highly subjective, and b) highly dynamic.

In the TOE framework, the **T**-elements represent the potential complexity causes in the project related to the project scope or the content of the project. The **O**-elements represent the potential complexity causes in the project related to the project internal organization. The **E**-elements represent all the potential external complexity causes in the project, related to external issues or external organizational complexities.

*To what extent could each of the elements below **potentially** contribute to the complexity of the project?*

In the following tables, the elements of the TOE framework are explained.

Please express the potential contribution to the project's complexity using the following scale:
None (1) – little (2) – some (3) – substantial (4) – very much (5)

T- Element	Explanation (with an indication of scale between brackets)	Potential contribution to project's complexity
High number of project goals	*Think of "strategic" project goals (single – many)*	
Non-alignment of project goals	*Only if more than one strategic goal is present: amount of non-alignment (completely aligned – completely unaligned)*	
Unclarity of project goals	*Unclarity of project goal(s) amongst team members (totally clear – totally unclear)*	
Uncertainties in scope	*Presence of uncertainties in agreed scope of work (no uncertainties – lots of uncertainties)*	
Strict quality requirements	*Think of quality requirements for project deliverables (normal – extraordinary high)*	
Project duration	*How long is the planned duration, compared to your reference (short – very long)*	
Size in CAPEX	*Capital expenditure: total investment for the realization of the project (small for the company – very large for the company)*	
Number of locations	*The number of different sites / locations involved in the project, including contractor's locations (one – multiple)*	
Newness of technology (world-wide)	*Does the project make use of new technology e.g. non-proven technology (technology which is new in the world for this application (no new technology – highly innovative)*	
Lack of experience with technology	*Do the involved parties have experience with the technology used in the project (lot of experience – no experience)*	
High number of tasks	*Does the project have a lot of tasks, count for example work packages or subprojects (single – many)*	
High variety of tasks	*Does the project have lots of different types of tasks? (very similar tasks – very different tasks)*	
Dependencies between tasks	*What is the number and nature of dependencies between the different tasks? (small – many & pooled)*	
Uncertainty in methods	*Are there lots of uncertainties in technological methods to be expected (no - yes)*	
Involvement of diff. tech. disciplines	*What is the level of multi-disciplinarity? (single – very multidisciplinary)*	
Conflicting norms and standards	*Are there conflicting design standards and country specific norms included in the project (few – many)*	
Technical risks	*Do you consider the project being high risk (number, probability and/or impact) in terms of technical risks (no risk –very high risk)*	

Please express the potential contribution to the project's complexity using the following scale:
None (1) – little (2) – some (3) – substantial (4) – very much (5)

O - Element	Explanation (with some sort of scale between brackets)	Potential contribution to project's complexity
High project schedule drive	*How high was the pressure on the project schedule? (not at all – should be finished yesterday)*	
Lack of resource & skills availability	*Are there any problems in the availability of the resources (materials, personnel) and skills required for the project (all available – major problems in availability)*	
Lack of experience with parties involved	*Did you work before with the parties involved in the project, like JV partner, contractor, supplier (many times – no experience)*	
Lack of HSSE awareness	*Are the involved parties aware of the importance of Health, Safety, Security and Environment (HSSE) issues? (fully aware – not aware at all)*	
Interfaces between diff. disciplines	*Are there many interfaces between the different disciplines involved (like mechanical, electrical, chemical, civil, finance, legal, communication, accounting, etc) that could lead to interface problems? (few interfaces – many interfaces)*	
Number of financial sources	*How many different financial sources does the project have, like own investment, bank investment, subsidies, JV-partners, customer(s)? (single source – multiple sources)*	
Number of contracts	*How many different contracts are involved in the project, think of contracts with the customer, the contractors, suppliers, etc (single contract – multiple contracts)*	
Type of contract	*Are these all different or all the same and Is the chosen contract type adequate for the project? (all the same / OK, all different / not adequate)*	
Number of different nationalities	*What is the number of different nationalities involved in the project? (single – multiple)*	
Number of different languages	*How many different languages are used in the project communication? (single – multiple)*	
Presence of JV partner	*Do you cooperate with a JV (joint venture) partner in the project? (no – yes)*	
Involvement of different time zones	*Are there different time zones involved in the project, as a result of which for example planning of joint meetings is more difficult? (single time zone or limited impact – multiple time zones, major impact)*	
Size of project team	*How many persons are within the project team (few (1-5) - many (>200))*	
Incompatibility between different PM methods / tools	*Do you expect compatibility issues regarding project management methodology or project management tools between involved parties? (no compatibility issues expected – major issues expected)*	
Lack of trust in project team	*Do you trust the members of the project team (completely – not at all)*	
Lack of trust in contractor	*Do you trust the contractor(s) involved (completely – not at all)*	
Organizational risks	*Do you consider the project being high risk (number, probability and/or impact) in terms of organizational risks (no risk – very high risk)*	

Please express the potential contribution to the project's complexity using the following scale:
None (1) – little (2) – some (3) – substantial (4) – very much (5)

E - Element	Explanation (with some sort of scale between brackets)	Potential contribution to project's complexity
Number of external stakeholders	*How many external (e.g. outside the project team) stakeholders are involved in the project (like NGO's, (local) governments, different departments, suppliers, local residents, etc); those parties that can influence or are influenced by the project? (few – many)*	
Variety of external stakeholders'perspectives	*To what extent do the perspectives of the different stakeholders differ? (not so much differences – completely different)*	
Dependencies on external stakeholders	*What are the dependencies on the external stakeholders (no dependencies – many and very crucial dependencies)*	
Political influence	*To what extent does the political situation influence the project (no political influence – severe political influence)*	
Lack of company internal support	*Is there enough company internal management support for the project? (enough support – not supported)*	
Required local content	*To what extent are local parties obliged to participate in the project in order to have permission to execute the project (no local parties required – large part of the project should be executed by local parties)*	
Interference with existing site	*Do you expect interference between the current site or the current use of the site and the (foreseen) project location? (no interference, Greenfield – lot of interference, Brownfield)*	
Remoteness of location	*How remote is the project location located, think of reachability, availability of infrastructure and other facilities (easily reachable – very remote)*	
Lack of experience in the country	*Do the involved parties already have worked in the country before? (yes, several times – no experience at all)*	
Company internal strategic pressure	*Is there internal strategic pressure from within the company/organization, for example from the business or competitive departments? (no internal pressure – high internal pressure)*	
Instability of project environment	*What is the stability of the project environment, think of exchange rates, raw material prices, economic situation (very stable environment – very instable environment)*	
Level of competition	*What is the level of completion related to current market conditions (no competition – very strong competition)*	
External risks	*Do you consider the project being high risk (number, probability and/or impact) in terms of external risks (no risk –very high risk)*	