Trivium's thinking on Complex Projects and Dry Runs

Agenda
1. Key messages 1-5 and anecdotes on what goes wrong
2. How do we solve it – processes and anecdotes
3. Three Key message for success

1. Key messages 1-5 and anecdotes

Message #1 - Recognition comes too late

Anecdote 1.1
Many large projects build large complex physical assets, which in itself is difficult to understand and manage. To organize the project complex organizations are built, which in itself is difficult to get to work, and understand. The consequence of this is that no single person can grasp both the asset and the organization. Hence projects live their "own" isolated life, where decisions are made, and executed, without any assurance that it is ultimately linked.

Anecdote 1.2
We see that the projects are divided into a number of sub-projects, without a consistent group-wide project management. Subprojects take isolated decisions that are ok in the narrow frame, but not to the benefit for the project as a whole. The consequences of the isolated decisions are identified late in the project life cycle, because nobody proactively coordinates across.

Anecdote 1.3
We have seen that large projects have used project models and processes, where the solutions they came up with, could not be achieved with existing methods. Understanding that the solution is not feasible came deep in the design or construction phase, that is, where the changes are very expensive. The project exceeded on time and budget by more than 100%. What costs a penny to solve in the initial phase of the project will be 5 - fold along the way, and 10-fold when the burning platform is established at full strength. We call it the 1-5-10 model. The wise guys recognize this from the start, where it is cheap to handle it, rather than waiting until in the construction phase, where changes are extremely expensive.

Message #2 - Structure and organization does not support unforeseen changes. The ability to implement project changes is often not present and communication is undervalued and inadequate

Anecdote 2.1
Large projects are often subject to high hierarchies, where the decision competence lies high up in the hierarchy. There are often so many levels that the necessary detailed knowledge and sufficient formal decision-making power is not in play at the same time, when crucial decisions are made.

Anecdote 2.2
Large projects are often organized into many smaller project teams, the organization is based on the assumption that the project is totally thought through, it is assumed that the interfaces are identified and understood. Since the major projects are often complex, but not organized and managed as such, there will naturally be major challenges, when subprojects need to make major changes, which have an impact on other subprojects. Because the organizations do not focus on this vital aspect, changes come as big surprises too late.

Anecdote 2.3
The large projects are often split into several subcontracts. To implement changes in this structure, is often very complicated, and not conducive to the ability to make changes in the project.

Anecdote 2.4
Large projects do often have a lot of people involved. We often find that there is a lack of focus on communication. Often one subproject is not allowed to communicate with the other. It is also often seen that several people from the same sub-project sends different messages. At the same time, there is no consistent overall communication, which ensures a high consistent level of knowledge across the project. Many projects have been characterized by uncertainty, rumors and uninformed decisions.

Message #3 - Challenge with great geographical distances

Anecdote 3.1
The current project models are developed at a time, when the world was less global than it is today. The context in which a project is carried out has changed significantly. This understanding is not new to project managers of the major projects executed today. What is new is that it requires different ways of working to tie the project organization together across the vast distances and cultures.

Anecdote 3.2
Key questions that need an answer:
"How do we tie the project together across teams on 3 continents?"
"How do we communicate despite different time zones?"
"Which media can we use to optimize communication?"
"How can we operate cost effectively when people are scattered all over the world"?

Anecdote 3.3
The high costs associated with bringing together people from 2-3 continents means that many are focusing even more emphasis on the project plan as the shared Bible, with clear milestones etc., but the bigger the project, the greater illusion that this works.

Message #4 - Challenges with various national and professional cultures are not dealt with

Anecdote 4.1
Strong professional skills are usually a prerequisite for the success of the project, the ability to attract and retain the right specialists and key personnel is crucial to the project. In order to get maximum value out of these resources, projects need strong internal processes. If not organized through strong processes, the result is often that disciplines compete for the right to "truth" even though the truth as such does not exist. These internal clashes between professional cultures results in deadlines are not met, and that there is mistrust between the partners in the project

Anecdote 4.2
The above is multiplied by a significant factor if you have a project organization with people of different national backgrounds. Even in Scandinavia and Europe it is often seen, and if projects are executed across continents with large cultural differences, the management of culture becomes even more critical to the success and progress. In short - we have not seen a project yet deliberately proactively working on "Cultural Intelligence" in their project plan, but we have seen many who are trying to deal with it later, when all internal surveys ranks "cultural differences" as the No. 1 issue related to the lack of progress in relation to milestones. Too little is done and often too late.

Message #5 - "No one can find the solution alone"

Anecdote 5.1
Large projects often have many dimensions, why individuals cannot build an overview of the whole project. To understand the whole project you need a group of people with different insights together to work together.

Anecdote 5.2
The characters (high performers and competences) are often spread out in many parts of the project, each with their own separate agenda. It makes it extra difficult to implement processes, where the totality of the solution is tested and evaluated.

Anecdote 5.3
The traditional tools used to find a solution is often inadequate, each tool reveals not the whole, but specific dimensions of it.

Anecdote 5.4
Large projects often come to a state where the individual project manager can no longer keep track of the whole. And thus, the project manager will always contain only part of the solution, and not the entire solution. The skilled project managers see through this and the less skilled "use their decision power" to get their part of the truth to fit with their reality of the project - often unsuccessfully. To find a robust an executable solution you need to involve key people from the overall project – to make it happen you need abundant, continuous and rich communication in order to develop and maintain trust between the parties.

2. How do we solve it?

Anecdote nr. 1 - Synchronization - "Dry run" - establishes the overall project understanding

No one has the overall understanding, and it prevents those responsible to act in time. The sooner problems are solved, the lower the costs. The costs of solving problems increases significantly as the project progresses into construction phase.

Early SYNCHRONISATION can save a lot of money.

The fastest way to create a synchronized world is to run a PROJECT LEGO ®SERIOUS PLAY® DRY RUN over 2 days with all relevant persons. This creates the overall perception as a prerequisite for the further management of the project.

Anecdote nr. 2 - Get out of automatic decision mode and into learning mode

Many projects currently works with Dry Run in one form or another, so we must ask ourselves why it still often goes wrong.

In our view, the single biggest factor is inappropriate project models, the project models are not designed to deal with complex systems, they are more appropriate for complicated projects, where experts intellectually can cope with the challenges. To days, Project Models, PowerPoint's, waterfall thinking and limitations of language in writing do not ensures the rich communication and common understandings that are needed in complex projects.

You need processes that are physical, emotional oriented, talking to both brain and heart to make the complexity of human understandable as it afterwards can be managed and controlled (navigate)

Processes that ensure that participants are in a learning mode, where they do not only take the usual automatic decisions from Neo Cortex based on existing knowledge and survival anxiety. This must be done in a safe space through a secure process, where all the critical elements can come to the table and be discussed honestly.

It is recognized that the best way to learn is through play - both for children and adults. Children play in order to train them for adult life. Adult play to train for business. Play with a serious purpose - LEGO SERIOUS PLAY

Anecdote nr. 3 Change the governance and management of complex projects

Efficiency is achieved by making sure that people responsible for a given activity, have experience with it, have appropriate tools and focuses on quality first. The same properties are helping to create blind spots, resistance to change, and hasty decisions. When projects are complex and often have new material aspects, it is important to try to understand them without preconceptions - in short - you need to be in a learning mode, where you are willing and able to challenge some of your basic assumptions, then there is a good chance that you chose a better way forward for the project.

Governance and management of the projects must be adjusted so that the project remains holistically orientated. There must always be an organization with a unique leadership that is accountable to the totality of a project, so it can outbalance issues going across subproject

borders, and avoid sub optimization. This means that, contracts, sub-amendment procedures, etc. should be designed so that they support a holistic understanding. There must be well implemented processes that support the management of the whole, effective and efficient implementation of changes and especially communication processes.

3. Three Key Messages

Three steps that will:
- Ensure a good start of the project or
- Bring difficulty projects back on track

Step 1 - Think and act Holistic
Holistic awareness should be created as early as possible and as deep as possible, at the time the changes are inexpensive and quick to implement. Keep going until the expected marginal benefits of an extra awareness process exceed the cost.

Step 2 - Build and see the project physically in 3D
Build, see and understand the whole project in physical form. When you physically built a project and its solution you can get deeper insight and understanding of the project. Sharing the physical model across stakeholders can create a coordinated understanding of the project across stakeholders, leading to more synchronized actions.

Step 3 - Synchronization across all teams
Projects with individual subproject teams that do not have a synchronized overall understanding of the project is a threat to the project's success despite everyone's best intentions. This will results in exceeding budget, failure to achieve milestones and a widespread mistrust between partners in projects - both internal and external.
It is of great value for any major project to create an initial synchronization early in the development phase, as well as to monitor the project through a synchronization of all relevant key people/ stakeholders in the projects, sometimes the entire project, other times for parts of the project.

Synchronization is more than the project's steering committee partial project management. Synchronization should happen between people that you might not normally be / should talk to for contractual reasons (it could be subcontractors who have won a tender), across people you might not want to talk to and across hierarchies to ensure the right knowledge are at the right place.
It can be advantageous to create a non-hierarchical Synchronization Team across the entire value chain, including project clients. This team reports into the project management, but are not project management.

Trivium

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