Dar Al Riyadh Insight #19
Flows in Large Complex Projects – Recommendations to Assess Flows

Dar Al Riyadh Insights reflect the knowledge and experience of our Board, executives and staff in leading and providing PMC, design and construction management services. Dar Al Riyadh believes in the importance of broadly sharing knowledge with our clients and staff to improve project outcomes for the benefit of the Kingdom of Saudi Arabia.

In this series of Dar Al Riyadh Insights we have look at different types of flows that impact large complex projects. In this Insight we will share some thoughts on how to best assess these various flows.

Recommendations to Assess Flows

In our management of projects, the vast majority of our controls are inward facing, focused on the *Transformative Flows* we have selected and which we seek to manage every day. These important *Transformative Flows*, both within discrete project tasks as well as the project's *Transformative Flows* we have defined to optimally deliver the overall project, however, are subject to disruption from flows outside our direct control and ones that our project control efforts have not historically been focused on.

We must complement our inward-looking assessment of project planning, performance, and trends with in-kind efforts that are externally focused. We must look at the evolving situation from different points of reference. Specifically:

1. Strategic Business Objectives (SBOs) become more important than mere scope requirements in achieving ultimate success. In some instances, projects may be faced with emergent SBOs, especially when *Influencing Flows* cross the semi-permeable project boundary over an extended project timeframe.

2. The semi-permeable boundaries of large complex projects represent an important management frontier to be posted with "sentries" on the lookout, giving visibility to flows across this boundary and identifying emergent outcomes. Many good things happen at this frontier, including exchange of information and knowledge as we engage stakeholders, thus obtaining valuable insights on factors affecting the outcome. Not all things crossing this frontier, however, are necessarily reinforcing of the desired project outcomes or the efficiency and effectiveness of the various sets of ongoing *Transformational Flows* in the project.

3. Stakeholder influences now define a surrounding and interacting ecosystem that includes stakeholder-to-stakeholder interactions, but also an ecosystem that the project acts on and influences through so-called "ambassadors." While not predictable, **disturbances in flows, such as from eddies and *Induced Flows*, become signatures of the direction of likely system emergence**. Predictive project efforts employing big analytics may be better aimed at flow patterns, especially

those crossing the semi-permeable project boundary and the broader externalities driving and shaping them. (***Note***: *Emergence is when projects exhibit properties and behaviors which are attributed to the whole, not to its various tasks. Emergent behavior in projects is a result of the interactions and relationships between project elements and tasks rather than the behavior of individual elements. It emerges from a combination of the behavior and properties of the project elements and the project structure, both physical and execution process, and the potential interactions between them.*)

4. Carefully monitor project frontiers with "sentries" looking out for new flows, changes in existing flows, and assumption migration; environmental "scouts" seeking out new flow drivers, emerging flows, and emerging actors; and engagement of stakeholders through "ambassadors." Look for patterns and points of change that can trigger new patterns, new *Influencing Flows,* and that can create new *Induced Flows*.

5. Recognize that emergent risks represent a key driving force of many flows.

6. Identify hidden reservoirs of stakeholder power and potential vectors of influence.