

## Asset Investment Planning – A Best Practice Approach: Scenario Planning

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Organizations tend to interpret Asset Investment Planning (AIP) in their own context and within their 'in-office' mandate, but the fundamentals of asset investment cannot be constrained to these interpretations. For example, governments with relatively short term mandates – four years – cannot define asset investment within perspectives of four years as the life cycle of assets they invest in last 75 years or more, and the institutions they represent exist for perpetuity, delivering sustainable services using these assets. While some interpret this as a conflict in decision making, in fact, all governing councils and boards bear a fiduciary responsibility to engage in strategic planning to determine long-term strategies. These strategies far exceed their legislated 'in-office' term horizons and mandates, and consider organizations as 'going-concerns' for perpetuity.

The AIP needs to follow many steps such as identification of investment need, planning, optimization, delivery and outcome review, to arrive at defensible asset investments. We will discuss the very first step, scenario planning, below.

Long-term AIP is not forecasting future conditions of assets and combining them with life-cycle data to arrive at a future financial outlay. This is nothing but a short-term methodology to arrive at CAPEX/OPEX budget allocations. Extending this practice over 50-75 years does not make this exercise a long-term strategic AIP. The best practice involves planning scenarios recognizing future uncertainties, engaging in environmental scanning. Scenario planning aids in strategy formulation by getting an organization to take a 'position' about the distant future to make investment decisions today. This exercise results in conceivable future scenarios for decision makers to work with rather than projecting a future based on 'historic experiences'.

The way to achieve this is to bring all parties together: strategic, tactical and operational managers, and technical, financial and business managers who will convey diverse opinions about the future. The involvement of strategic/senior levels managers who generally excuse themselves from such activities is critical. Suggestion that this is only a technical and financial exercise is incorrect. Effective engagement of all parties not only yields agreed upon plausible scenarios, but also helps focus on insights and understanding downstream impacts of business decisions. It also helps empower employees across the business.

During the scenario planning session, the participants will model a future world together. They will 'live' in it to discuss the opportunities they could leverage and challenges they need to tackle within the identified future economic, political, social, and technological environments, and develop future scenarios within those identified future environments. To make this a reality, the exercise needs to happen in a physical secluded space. Here participants will 'scan' the future environments, discuss and understand the future to align their diverse points of view and arrive at close-to-real future scenarios for which the infrastructure service needs and investments can be modelled. Those who want to take an advanced approach could even involve 'future stakeholders'. An important value in this exercise is for all to 'dream' the future; for this, business managers need to navigate the session rather than technical/engineering managers with hard-science thoughts that would limit 'dreaming'.

Leveraging technology solutions should be considered only with a complete understanding of the value of engagement and that AIP is not something modelled in a 'black-box' software platform. For software solutions alone to make this possible, all organizations must deliver the same services, year over year, over the next 50-100 years, in an environment that is frozen; we know this is not the case. In reality, service demands, regulations, environmental factors, physical environmental challenges such as climate change impacts, technological advancements such as advanced air mobility (e.g., 'flying cars') and artificial intelligence, and economic and demographic changes will influence the future.

A common opposition to this exercise would be our mental block around unfamiliar processes such as scenario planning, but if we are interested in providing sustainable service delivery to support the needs of our 'future stakeholders' and support a thriving future economy, this exercise is inevitable. This will not only help plan asset investment at an appropriate level, but will also help make those 'best scenarios' become a future reality. As great minds believe, the future is not something we enter but partly what we create, and it belongs to those who prepare for it today.