Project Plan for Implementation at the Grassroots

Stages, steps, tasks and deliverables

Richard G. Lamb, PE, CPA
Tel: 832-710-0755; Email: rchrd.lamb@gmail.com
Website (educational): https://analytics4strategy.com/

Agenda:

- ❑ Generalized implementation plan.
  - ➢ **Big picture of implementation.**
  - ➢ People—the central issue for development.
  - ➢ Stages, steps, actions and deliverables.
- ❑ Reading

Your organization needs an implementation plan to put the knowledge, skills and methodologies in play that meets the following standards

- A path of stages, steps, tasks and deliverables along which to steer each chosen operation from its current state to being fully data-driven.
- Generalized—not intended to fit every case—so that you can see what needs to happen and modify the plan to fit the nature of your organization and suborganizations.
- Structured to cause the transfer of knowledge, skills and methodologies to the role holders in implementation and subsequent functioning.

Generalized progression of stages, steps and accomplished organizational abilities

Stages and Steps

Stage 1: Set direction and prepare.

1. Form clear understanding with leadership and initial decisions.
2. Prepare nucleus players to participate.
3. Set competitive North Star for data-drivenness.

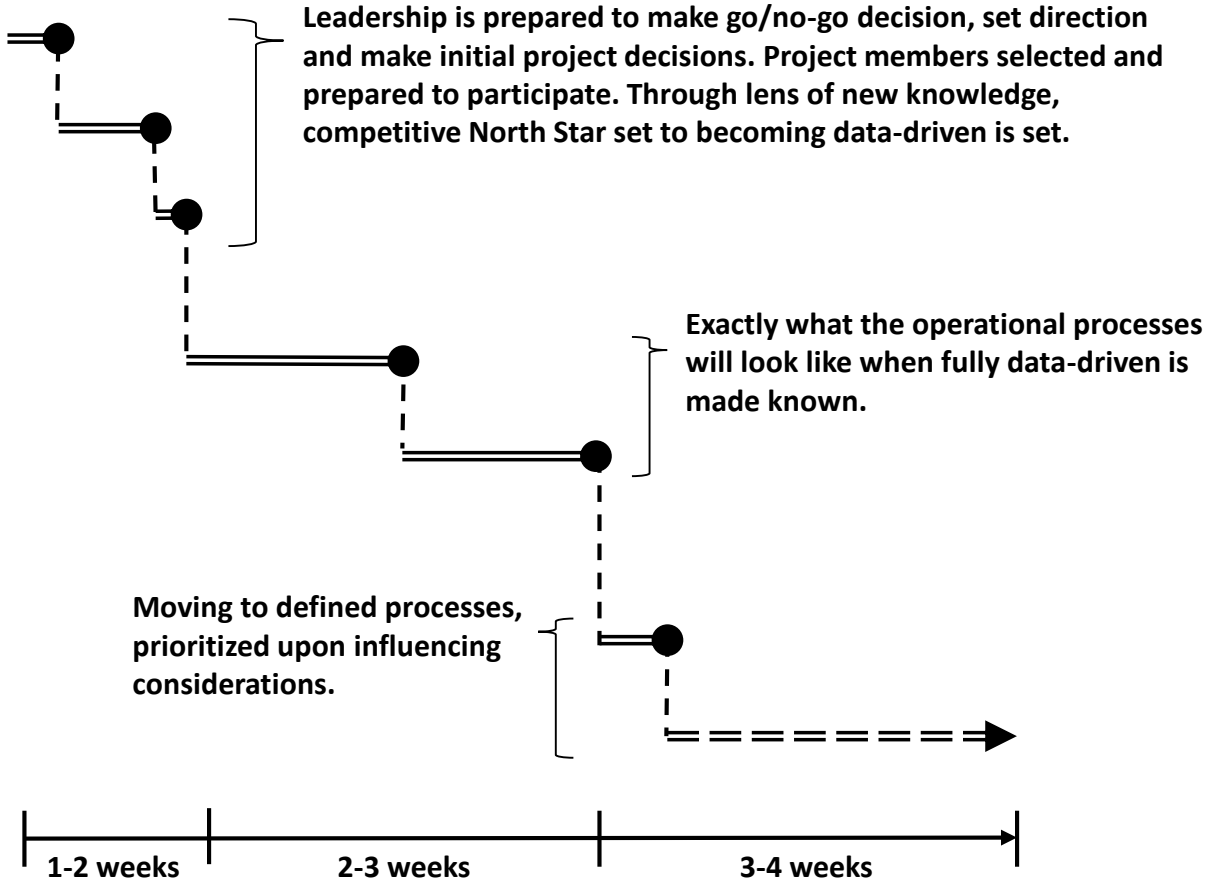
Stage 2: Conduct basic design.

1. Charted, detailed operational processes for data-drivenness.
2. Map deliverables to charted process & form basic designs

Stage 3: Plan and form detailed design and startup.

1. Establish the sequence to implement insight deliverables.
2. Form detailed designs and implement.

Timeline to General Abilities



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Your organization needs a plan. . .

. . .BUT to succeed, the path must also be charted to cause the transfer of knowledge and skills of data-drivenness to the chosen operations.

The organization must set a strategy to either incubate or recruit the necessary human talents for data-driven operations

- **Polar opposite choices:**
  - **Upskill the process role holders to be new-age workers.**
  - **Recruit specialist professionals in data, charting and analytics to conduct data-driven tasks, leaving the process players to continue on largely with only pre-data-driven skills.**
- **Drawbacks to the specialist alternative:**
  - **Is it fair to the process role holders to be essentially left in the past?**
  - **Specialists lack the depth and breadth of domain expertise that process role holders have gained over years.**
- **The charted implementation plan is designed to upskill role process holders as the implementation project unfolds.**
- **The plan is constructed upon three categories of participants.**
  - **Drivenness guide.**
  - **Nucleus players.**
  - **Management advocates.**

Drivenness guide: Currently the most difficult resource to find and probably does not yet lurk in most organizations

- **Strategy:**

  Engage a drivenness guide, once found, in a manner such that many of those they work with will evolve to being able to take on the guide role—one step behind.

- **Primary qualifications:**
  - **Considerable history in operational excellence work.**
  - **Has learned to incorporate the knowledge and skills of data, charting and analytics into their long-gained, advisory-grade acumen.**

- **Role:**
  - **Off-load the skills of data-drivenness to all who are involved in the team and roles in bringing the subject operation to data-drivenness.**
  - **Participate, by collaboration and mentoring, as a team member to identify, design and build the insight deliverables.**
  - **Collaboration is the platform from which to train the engaged nucleus players and role holders in the principles, practices and tools of data, charting and analytics.**

Nucleus players: First individuals to be engaged in the design, build, dissemination and use of all insight deliverables

- **Role as strategy:**
  - **Master the hands-on skills of data-drivenness.**
  - **Disperse the skills to everyone along the subject processes for which working with data and insight deliverables will become part and parcel to their roles.**
  - **One or more of the nucleus players will take on the role of project manager to seed the skills for managing data-drivenness projects across the organization—local and global.**
- **Qualifications: Process operatives, managers, experts and engineers in the subject processes and operations.**

Management advocates: Always an issue to assure that the vision of becoming data-driven will become the reality

- Data-drivenness will cut across the bounded subprocesses.
- Managers, downward from the pinnacle of the involved processes.
  - Advocate data-drivenness by word and demonstration.
  - Encourage individuals to strive to become new-age employees.
- Managers have skin in the game as one of the greatest beneficiaries of the insight deliverables.

As the stages unfold, the knowledge and skills of data-drivenness are transferred to managers and nucleus players by the drivenness guide

Stage	Knowledge and Skill Transfer
1. Set direction and prepare.	▪ Management and the nucleus players they select will learn the framework of data-driven operations. ▪ Nucleus players trained hands-on in the skills of building and cleansing super tables, exploring the tables with methods of descriptive statistics and building layered charts.
2. Conduct basic design.	▪ Nucleus players trained in the types, principles and interpretation of ML/AI analytics as mandatory to have the expertise to specify which of all insights deliverables are relevant to the process.
3. Plan and form detailed design and startup.	▪ Nucleus players trained hands-on to build and deploy the insight deliverables they specified in the previous stage.

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Stage One: Set direction and prepare

Stage prepares the subject organization's leadership to make the initial go/no-go decision for data-drivenness. If "go," and with the preparation of the stage, leadership will set direction and make initial decisions for the project. Upon the decisions, project members will be selected and prepared to participate as project members.

Step 1: Prepare leadership to give direction and make decisions for data-drivenness.	
The step is to give leadership a clear, implementable understanding of data drivenness. With the understanding, leadership will set direction and make the initial decisions with respect to go/no-go, geography and project nucleus players.	
Activities	**Deliverables**
1. Present to leadership a clear, implementable explanation of data-drivenness. 2. Bound the organization to be subjected to an initial data-drivenness project. 3. Select the nucleus players from the process of operatives, leaders and analysts to participate in the project.	• Decision-level leadership is conversant and knowledgeable in the principles, practices, software and skills of data-drivenness. • Organization delineated for becoming fully data-driven. • Nucleus of personnel who will participate in building and dispersing the principles, practices and skills to their colleagues within and possibly beyond the targeted geography.

Continued. . .

Continued: Stage One to set direction and prepare

Step 2: Prepare the chosen nucleus players to participate in the design, build and function of data-drivenness.	
The chosen nucleus players will receive the same training given to leadership. They will be additionally trained hands-on in the skills of building and cleansing super tables, exploring the tables with methods of descriptive statistics and building layered charts.	
Activities	**Deliverables**
1. Train the nucleus players to be conversant in the principles, practices, software and skills of data-drivenness. 2. Train hands-on the nucleus players to extract, join and cleanse the data with MS Access and R, and subject the tabled data to descriptive statistical analysis with R and layered charting with ggplot2. 3. Act upon discoveries during the step that have obvious, immediate ramifications for operational effectiveness and efficiency.	• Nucleus of personnel with the working skills to extract, join and work with data, as well as, mentor others in the skills. • Library of "cookbook" materials such as slides, training materials, articles and texts. • Installed, or underway, developments from the discoveries of the step. • Informal and probable: Self-directed actions by individuals to upgrade the tasks of their position with newly gained skills for insight deliverables.

Continued. . .

Continued: Stage One to set direction and prepare

Step 3: Set the competitive North Star for data-drivenness.	
It is necessary to establish the top-down competitive framework by which the progression to full data-drivenness can set its direction, make its choices and set its priorities along the way. The step is placed third in order to conduct a competitive assessment through the lens of what is possible through data-drivenness and conversely view data-drivenness with respect to begetting competitiveness.	
Activities	**Deliverables**
1. Frame how the enterprise competes and wins and how that is reflected in return on investment through the financial statements. 2. Generalize how the subject organizational processes variously affect competitiveness. 3. Establish qualitative and quantitative measures downward from returns and through the financial statements by which the ramifications of data-drivenness will be judged and insight deliverables will be valued. 4. Review the initial process geographic decisions for necessary revision.	• Statement of competitiveness for the firm and how the acts to plan, organize, conduct and control the subject operations play into competitiveness. • Structure of categorical and numeric metrics by which the ramifications of data-drivenness and insight deliverables will be evaluated. • Sharpened original direction and geographic decisions—if revealed as necessary by the step.

End of Stage One. . .

Stage Two: Conduct basic design

The stage will assess how the selected operational processes work and, in turn, how insight deliverables would practicably enhance their effectiveness and efficiency. Ultimately, a basic design will be formulated for each insight deliverable.

The nucleus players will be trained in the types and capabilities of the range of machine-learning/artificial-intelligence-based (ML/AIB) analytics upon which modeled insight deliverables depend. Before it is possible to conduct basic design, it is necessary for the team to learn which and how the ML/AIB analytics variously enable five types of questions for insight to be asked and answered of the processes—relationship, difference, time series, duration and apparency. In contrast to the training of the step, hands-on training in the ML/AIB analytics will take place in the third stage as the recognized insight deliverable are built and made functional.

Continued. . .

Continued: Stage Two to conduct basic design

Step 1: Detail the operational processes for becoming data-driven.	
The step is to fully understand the subject processes, identify external threats to their performance and kick off any discovered obviously mandatory remedial actions along the critical path to reaching data-drivenness.	
Activities	**Deliverables**
1. Chart the processes as they are intended to work, understand their operational systems, find all cases of process steps conducted outside of the systems with Excel or other software, catalog the data captured and generated along the processes, and identify all existing insight deliverables. 2. Cluster the process sectors, paths and steps with common ramifications to the dimensions of enterprise competiveness (e.g., production, inventory, and variable and fixed costs). 3. Search out local and global threats from other processes to the effectiveness and efficiency of the process clusters. 4. Identify and spin off for immediate action any discovered cases of process and data failures for which remediation is obviously mandatory to becoming data-driven.	• Process charts overlaid with existing operating systems, tasks conducted with Excel and other software, data along the processes, existing insight deliverables and would-be fatal flaws to data-drivenness. • Documented cases of where, when and how surrounding local and global operations present threats to realizing the enterprise-level competitive ramifications of the subject processes. • Proactive initiatives underway to remedy fatal processes, behaviors and data.

Continued. . .

Continued: Stage Two to conduct basic design

Step 2: Map proposed insight deliverables along the charted operational processes and form basic designs.

Whereas the previous step lays out the processes and external threats to their effectiveness and efficiency, this step will lay out the operational processes with respect to what they will be when fully data-driven; including data-driven strategies to deal with external threats.

Activities	Deliverables
1. Train the project team in the ML/AIB analytics such that they can finally assess and recognize the ramifications of any of all types of insight deliverables to a process and then form the basic-design for each. 2. Identify two cases for insight. a. Along the charted processes where an improved ability to plan, organize, conduct and control will practicably influence enterprise competitiveness. b. Outside the charted processes where non-compliance to related processes are a threat to the subject operational processes. 3. Determine the set of one or more insight deliverables at each location of influence along the processes and to deal with external threats to the influence. 4. Specify the format and content for each proposed insight deliverable. 5. Identify the source data, software, knowledge and skills to generate and utilize each insight deliverable.	• Nucleus of personnel who have extended their knowledge and skills to being fully conversant in the ML/AIB analytics as insight deliverables as well as mentor others in the knowledge and skills—arriving at a fully understanding all available insight deliverables. • Insight deliverables mapped to the charted processes and threats to their influential effectiveness and efficiency. • Table of basic designs for each insight deliverable: title, users, preparers, content, source data, implementing software and skills. • Informal and probable: Self-directed actions by individuals to upgrade the tasks of their position in response to the findings and new knowledge and skills of the stage.

End of Stage Two. . .

Stage Three: Plan and conduct detailed design, build and startup

The stage starts by determining the order that individual or groups of insight deliverables will be designed and put permanently into play. The stage then prepares and progresses through micro-projects to conduct the detailed designs and implement them. The training of nucleus players continues to completion by virtue of doing the hands-on building work of the stage. They, in turn, will train process role holders as there are start-up activities.

Step 1: Establish the sequence by which the proposed insight deliverables are to be implemented.	
Not all insight deliverables have equal ramifications and homogenous issues. The step deals with arriving at an optimal, practical sequence for bringing the insight deliverables on line.	
Activities	**Deliverables**
1. Develop a set of criteria for classifying the proposed insight deliverables for their relative ramifications and issues. 2. Rate and rank the insight deliverables for implementation against the criteria. 3. Make decisions for sequential implementation along single or multiple paths.	• All propositions classified for ramifications and issues. • Decisions for order of implementation—subject to reconsideration as implementation unfolds.

Continued. . .

Continued: Stage Three to plan and conduct detailed design, build and startup

Step 2: Form detailed design and chart cyclical process for each insight deliverable and implement.	
As micro-projects, the step will conduct the detailed design of each insight deliverable according to the sequence plan. The cyclical process for each or set of insight deliverables will also be charted and detailed. The nucleus players will learn to build the ML/AIB analytics for modeled insight deliverables in addition to reinforcing the earlier hands-on trained skills in building cleansed super tables, layered charting, and know-thy-data and recountive insight deliverables. Process role holders, not on the project team, will receive the skills for their roles from the nucleus players.	
Activities	**Deliverables**
1. Develop and approve micro-projects for detailed design and startup—including tasks for upskilling non-nucleus-player process operatives. 2. Form and approve the full functional detailed designs for the subject insight deliverables and their cyclical processes. 3. Roll out and bring each data-driven proposition to full function.	• New-age operations: Built insight deliverables embedded in the fully functioning processes to prepare, conduct initial analytics, disseminate and consume insight. • New-age people: Rapidly and organically growing number of operational role holders who are trained in the thought, design and functioning of insight deliverables.

End of Stage Three and project plan. . .

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- **Reading**

Readings in project strategies, project returns, and organizational behavior and design

Reading	Link to download free pdf-book
Maintenance Reinvented for business Success • Chapter 7: Execute Returns • Chapter 9: Structuring Five Business Systems	https://analytics4strategy.com/mntcreinvented
Organizational Behavior	https://analytics4strategy.com/orgbehavior
Availability Engineering and Management for Manufacturing Plant Performance Chapter 13: Organization Design for Maintenance Operation Functions and Availability Management	Available only by purchase at https://www.amazon.com/Availability-Engineering-Management-Manufacturing-Performance/dp/0133241122/ref=sr_1_2?s=books&ie=UTF8&qid=1531929985&sr=1-2&keywords=availability+engineering