

Bringing in GIS (1)

GIS is often considered a solution in search of a problem, and GIS solutions are promoted as the cure for all business challenges. The authors advocate a top-down, rather than a technology-driven, solution and describe a methodology for identifying strategic objectives and representing how GIS can support them.

As advocates of GIS often discover, many barriers exist to finding funding for a technology-led project that gives priority to functionality over business value. A budget-holder will often lack knowledge regarding GIS and how it can positively impact business; occasionally, they even display cynicism as to its capacity for delivering value.

Discovery Phase

Our approach is to effect change within organisations from the top down, rather than pushing from the bottom up with a technology-driven solution. The 'top-down' approach is more effective than seeking to 'sell the business' a picture of how GIS might solve their problems. It consists of:

- working with executives to identify strategic objectives and benefits
- assessing the 'as is' state of the organisation
- determining whether change is truly needed
- representing how the GIS change initiative will support strategic objectives.

The first two points form the 'discovery phase', and to tackle them we have developed a three-step methodology which helps engage stakeholders, drive consensus on the need for change and win 'buy-in' for the solution. In order to reap benefits, the idea is not be tied to any prescribed outcome, but rather to the best solution. To the ears of the GIS advocate this may sound contrary to the goal, but being 'solution-agnostic' helps gain credibility and buy-in from stakeholders. The discovery phase is broken down into three steps: Mobilisation, Diagnosis and Visioning.

Mobilisation

The initiative should be treated as a project with a defined set of stakeholders who are actively managed. There needs to be a start and end date, and defined deliverables. The success of any project depends on identifying the right group of stakeholders and working with them to define a scope that covers the breadth of the problems. This is the time to mobilise resources, communicate goals and scope of the discovery phase and set up a governance model and structure. A project brief may be developed that summarises the charter and can be used as a method of communication in engaging and educating stakeholders. It is important to recognise that the organisation is in need of improvement and beneficial change. It does not need a GIS per se, but the values a GIS can deliver, and these will be manifested as business benefits.

Diagnosis

Every organisation is different, as are many of their key challenges. To gain insight into the opportunities for GIS without specifically 'selling' the organisation on a GIS solution, a crucial step involves interviewing executives with responsibility and ownership of key areas where GIS may deliver value. Here preparation is key, because executives' time is limited. An efficient interview requires first identifying what similar organisations have done with GIS to deliver top-line benefits, and, secondly, building a structured path-way of questions categorising organisational priorities for that particular stakeholder. Top-line benefits may include revenue generation, cost containment, service excellence, regulatory compliance, and health and safety.

The interview pathway should be modified according to how these apply to each stakeholder. A set of structured questions can be developed that correspond to the template headings outlined above; the key is to ask questions about the business and not necessarily about GIS. Once areas of value are identified, the interviewer should hone in and learn not only the objective but how it will benefit the organisation and where metrics exist to support it. For example, many businesses face the challenge of efficiently routing workers and service crews to maximise productivity and minimise travel time. A GIS-based solution could help improve routing efficiency, resulting in a quantifiable benefit. Data supporting this supposition may well exist in timesheets and other management systems. At the end of the interview objectives should be reviewed and areas of greatest value the stakeholder prioritised. Time should then be made for reviewing and synthesising notes, and considering ways in which benefits might be delivered.

Business Situation

A deep understanding of the business as related to GIS can be built only by talking to diverse business users and the IT staff supporting them. This is best conducted through workshops with both groups of stakeholders. In addition to offering insight into the current state of affairs, such workshops help build an understanding of the culture, attitudes and barriers to change. This ensures that any solution is practically suited to the unique organisational situation. It is important to involve senior executives for support and guidance.

A variety of tools can be used to define the 'as is' state, including a 'rich picture', which provides a one-page overview of processes, people, technology and data, and represents the complexity of interfaces, machine and manual processes, highlighting areas for potential improvement. A well-presented, rich picture can convince sceptics of the necessity for change by highlighting the complexity of operations and both short- and long-term business improvements enabled by GIS. To build momentum, the diagnosis phase should be performed over a compressed period of four to six weeks, depending on size and scope of organisation.

Visioning

Visioning is a collaborative exercise involving key stakeholders, in which a compelling vision of the future is developed. Having determined the strategic objectives, 'as is' situation and areas for improvement, all is now tied together by identifying a programme of initiatives. A good tool is a programme blueprint: a one-page overview communicating how the proposed GIS-enabled programme can meet the needs of multiple departments and stakeholders. This exercise energises the organisation and focuses on meeting business needs at all levels. The vision highlights a desired state, initiatives to be realised and the metrics and measures of success. The desired state must align with the goals and objectives previously identified, and the metrics and measures have quantifiable and tangible benefits. Toward the end of this stage, a 'Case for Change' workshop is held, where the future high-level vision is reviewed and initiatives to accomplish it defined. Subject to agreement with stakeholders, opportunity may be offered for 'quick win' improvements while building the business-case substantiating major change.

Concluding Remarks

Like any major programme for change, a GIS-enabled programme should present a compelling case for how it will meet strategic objectives and engage senior executives on their own terms so as to understand how their priorities provide the foundation. Being prepared for stakeholder meetings and getting it right first time is crucial for gaining creditability and instilling a belief in the capacity of GIS to add value. Clearly, linking the vision, organisational objectives, strategic goals and the enabling GIS technology convinces sceptics of the need for change and paves the way for the quantitative analysis required for identifying return on investment and programme governance, all vital to ensure delivery.

This is the first of a series of three articles. The next will describe how to perform quantitative analysis and treat considerations required for structuring delivery and support post-implementation.

<https://www.gim-international.com/content/article/bringing-in-gis-1>
