

# Bringing in GIS (3)

Innovative GIS projects are exciting to the technologist who understands and clearly sees the benefits. More challenging is convincing budget-holders and broad business that the investment is worthwhile. This can be done using the simple but powerful benefits-modelling approach.<P>

*This article, the last in a series of three, represents the final piece in the jigsaw of a business-driven approach to justifying GIS projects. The first article demonstrated the merits of a top-down, business-led approach to effecting change, as opposed to a bottom-up, technology-driven solution. The second article showed how to design an organisation and plan for success by establishing a robust business case.*

The benefits-modelling approach builds the quantitative financial case for the proposed GIS investment, while increasing buy-in on the part of the broader business. This then liberates the GIS team to focus on what really matters: delivering the project and expected benefits. The steps for developing a benefits-model are firstly to gather the metrics, secondly define the basis and GIS cases, and thirdly to make the benefits realistic.

## Metrics

In identifying benefits, the focus should be on those that are quantitative, or tangible. Qualitative, or intangible, benefits should not be dismissed, they may support the wider business case, but unless robust, verifiable figures can be found they must be avoided here, where the focus should be on benefits to which statistics may be attributed. Almost all quantifiable benefits can be traced back to cost reduction/avoidance (e.g. increased efficiency, avoiding regulatory penalties) and revenue generation/protection/assurance (e.g. increasing customers, defending market share). Regardless of the types of benefits, it should be clear how the GIS project will deliver them. Benefits need to be:

- easily collected and tracked, to demonstrate return
- robust: if a benefit is vague or the link to the project tenuous, look elsewhere
- unique: benefits should not be claimed that are counted in other projects.

Capturing metrics means the arduous task of engaging and obtaining input/agreement from key stakeholders, but is essential for acceptance. Meeting with business owners and educating them as to how GIS will help them realise business objectives and how impact their part of the business. In addition to lending the statistics greater authority, buy-in and support on the part of such individuals will be invaluable. In the absence of metrics, be pragmatic and ask business owners for estimates based on their experience. When easily quantifiable metrics are not readily available, 'ball-park' figures from 'expert business witnesses' should still stand up to scrutiny. Early teaming with finance will also provide better access to data and help in understanding the budgeting process, so the model can be set up to fit with requirements.

## Two Stages

Stage One is defining the basis ('as-is') case against which any improvement will be measured for 'apples-to-apples' comparison. At this stage it is important to keep things simple; the model will account for more complex techniques downstream. Consider the simplified example in which we capture input from the sales director in order to model increased profits from new subscriptions of a telecom company without (basis case) and with use of GIS (GIS case). Modelling the future GIS case will require use of a simplified set of numbers, so, to allow for comparison, the basis case has to be similarly simplified. Thus basis-case statistics might not perfectly match actual accounting figures. This is not critical, given the basis case is close to the actual, as they are only intended for purposes of comparison - this is modelling, not accounting. Stage Two is defining the GIS case which represents the 'to-be' state and aims at isolating and changing the input(s) influenced by GIS, here the incremental profit from new subscriptions attributable to GIS. In this example GIS makes possible one additional new sale per week by better targeting customer calls closer to existing or planned infrastructure.

## Realism

With the basis and GIS cases defined, more realism can be added by including factors such as year-on-year change, length of time to realisation and confidence analysis. These may seem counterintuitive, in that they often reduce the case for the GIS. However, it is better to demonstrate realism than to over-promise and be unable to deliver the return. Impacts on the case over time (year-on-year change) include environmental factors such as market cost changes. While not directly linked to GIS, these changes will affect the overall return and demonstrate insight and pragmatism. Expanding on the previous example, we can factor in an anticipated reduction in profit due to increased competition.

Most benefits are not delivered immediately, but accrue over time. For example, it may take a year to complete the project, in addition to a ramp-up time for process change, data migration and so on. As a result, the full benefit will be phased in over a period of time after the 'go-live' date, and this can be accounted for by a benefits realisation curve. We have already suggested that benefits should where possible be robust, and not double counted. However, it is unlikely that all metrics will consist of hard facts, solely attributable to one project; most will have an element of subjectivity that needs to be accounted for. Applying a broad sensitivity analysis to final statistics provides this adjustment and makes them more defensible. When presenting the results, additional factors can be listed and benefits reduced accordingly; e.g. in recognition of other factors at work, just 50% of the benefit might be claimed.

## Concluding Remarks

Acquiring GIS budget using a defensible ROI (Return on Investment) approach is only one key reason for modelling the benefits of GIS. Our clients model benefits for other reasons. To ensure that a GIS project is benefits-driven, organisations quantify the value that will be

delivered. This allows an executive to direct the GIS team to deliver value, not just technology. Proving value is not so crucial in mature GIS implementation; more relevant is prioritising future GIS initiatives to ensure they deliver maximum value. In a complex stakeholder environment, model-ling quantitative value allows rational prioritisation among competing groups. It's tough to argue with cold hard logic! An ROI model is the principal tool for quantifying value; however, a full ROI may not always be necessary. As this article demonstrates, simply identifying, calculating and communicating the benefits is often enough.

**Website**

<http://paconsulting.com/gis/>

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