

IC² Methodology

Understanding IC²

Across fifteen years of delivering IT solutions to small and large customers across a myriad of business sectors, Abilis has learned one important, simple, but often overlooked fact: that no two projects are alike. It is essential to see each project as a unique undertaking. There are serious dangers in the assumption that because an approach served well on one project, it will necessarily return similar results on another.

At the same time, it would be a major obstacle to re-invent processes and practices every time a new project is started. If project schedules are to be met cost effectively, it's necessary to draw on existing approaches and techniques.

Abilis' proprietary IC² software development methodology has evolved precisely with these considerations in mind and is the key component behind the success of Innovation Center projects. It provides a framework and templates to drive rapid development cycles. These are applied to fit each individual project, small or large, simple or complex, regardless of the technology being followed. In this way, the needs of the project and the customer always take center stage through every phase in the project's lifecycle.

FPFS – Fixed Price, Flexible Scope

The main difference in approach between Abilis and its marketplace competitors is the absolute commitment to delivering agreed scope, on the expected date, for a fixed price. The ability to consistently hit targets without needing to renegotiate budgets is treated as a paramount commitment and explains Abilis' high customer retention.

Where fixed-price projects traditionally become problematic or ineffective is in their treatment of scope. In every project there is always a set of core business needs that must be met, accompanied by a larger set of features that will add varying degrees of value to the core solution. As the solution is developed, the perceived value of many of these additional features will change and invariably new features will be identified. If both core and value-added requirements are treated within the fixed price framework, any scope changes result in financial negotiation and probable budget increases. Often customers prefer to stick with a less beneficial set of requirements in order to keep costs in check.

The IC² methodology avoids this problem and uses a framework that accommodates changing requirements throughout the lifecycle of a project, all within a fixed-price model. Indeed IC² actively *promotes* frequent and scheduled reviews of the project requirements to determine whether zero-cost changes could deliver better value to the business. This is achieved using the following approaches:

- Core requirements are delivered to customers in a **production-ready** version in the earliest phases of the project. Frequently, with only twenty percent of the IC² project lifecycle completed, a customer will be able to launch into production a system addressing eighty percent or more of their business needs for the project. Indeed, sometimes customers decide to terminate a project at this early point, thereby recognizing significant business benefits at a fraction of the anticipated costs.
- Added-value requirements are maintained in a prioritized list, which gets reviewed by Abilis and its customer at each subsequent IC² development iteration. The content and prioritization of this list is driven by changing business needs and feedback from users of the production version. Scope items may be freely added or removed and, provided the net work effort remains the same, the fixed price of the project stays fixed.

This **FPFS** (Fixed Price, Flexible Scope) approach is a key factor in IC² being able to provide the solutions that best fit our customers' needs and budgets, even when many of those needs aren't fully understood at the beginning of a project.

The essence of IC²

AGILE and Unified Process influences

IC² draws heavily upon established AGILE and Unified Process software development methods and techniques, including continuous integration, pair-programming, test-driven development and domain-driven design. IC² project teams are cross-functional and co-locate within Innovation Center 'pods', ensuring fast and effective communication and a reduced need for formal information exchanges.

Iterative development

IC² projects are managed using a series of thirty-day iterations, with each iteration delivering value that is immediately pushed into the production environment. Iterative development helps customers reap benefits early in a project but, more critically, permits constant review and feedback from users and stakeholders to ensure the solution being developed stays fully aligned with business objectives. IC² iterations also enforce constant quality checks, thus ensuring each addition to the solution gets built on top of a robust and fully tested foundation.

Risk-driven development

Throughout the lifecycle of each IC² project, teams constantly assess and prioritize risks that could de-rail development or reduce the business value to the customer. During any iteration, the perceived higher priority risks are always tackled and mitigated, whether through development, prototyping or analysis. By eliminating significant risks and reducing uncertainty during the early project phases, Innovation Center teams are able to follow a clear and predictable path during the key later stages, when surprises could be very costly, if not fatal to the success of the project.

Innovation Center tools and environment

IC² projects are most effective when conducted from within one of Abilis' North American Innovation Centers. The Centers provide an open and supportive environment through which teams, assembled together in pods, can collaborate face-to-face with minimal communication overhead. The secure development environments provide integrated tools to seamlessly manage requirements, design models, code, tasks, issues, risks, defects and test cases. New project

environments are set up within hours, allowing project teams to begin work on deliverables with minimal ramp-up time.

Planning for change

IC² projects aren't just adaptable to change; they openly encourage and promote it. A project with static goals, static requirements and a static design will typically provide weak business returns. IC² projects constantly look to improve on the initial goals, requirements and designs in order to give more value to the business. This is done through checkpoint meetings in each iterative cycle, but also by closely involving customers in project decisions and through the culture of 'Just In Time', whereby requirements and designs are crystallized at the last possible point.

Focus on customer involvement

Every IC² project team includes a customer advocate, whose mandate is to maintain and prioritize project requirements and ensure that the project delivers maximum business benefit in a minimum timeframe. Throughout the project cycle, complete transparency is maintained, allowing customers to understand and contribute on a daily basis to the development of the solution.

Where IC² is used

Abilis leverages IC² in all its projects, whether large or small. It has helped Abilis to deliver multi-million dollar projects for large corporations such as Air Canada, Air Canada Vacations and more than 40 individual projects over seven years for Bell Canada. IC² methodology has been equally effective on projects spanning just a few days or projects requiring only one or two people. The strength of IC² is in its adaptability and flexibility.

Most importantly, IC² allows Innovation Center teams to treat each and every project as a distinct and separate challenge. IC² charts the path for success.