



**Tessella Consultancy in Action:**

## **Accelerating the Drug Discovery Process**

**When a leading US contract research organisation needed to support a new operating model as a fully-fledged drug discovery company it called on Tessella's track-record and deep knowledge of consulting and technology in Life Sciences.**

### **Business and IT Challenge**

During the transformation of their business into an innovative new drug discovery company, the management team at a leading US contract research organisation quickly realised that their agility could be a major source of competitive advantage against larger pharmaceutical organisations.

However, to achieve this would mean finding innovative new ways of running the drug discovery process and also aligning their IT strategy to support the sharing of information across different functions.

Armed with an outline vision of their needs, the company went in search of an experienced consultancy that could help turn it into reality.

### **Agile Process**

Using lateral thinking and their knowledge of process improvement, Tessella consultants concluded that "Schooling", an Agile Project Management technique usually associated with software engineering, could be adapted to the drug discovery process.

"Schooling" uses concurrent workflows to arrive at the right solution more quickly, more often than more traditional linear, step-by-step processes, especially where it is difficult to fully define all the requirements in advance.

The term is derived from the behaviour of schools of fish, where one member takes the lead and the others quickly redirect to meet a common goal. It can also refer to the learning process implicit in scientific discovery.



Applying agile methodologies to drug discovery allows multiple workflows to run independently, which in turn influence each other at unpredictable points. When lines of investigation close, dynamic re-prioritization occurs. This makes attrition a positive outcome, which in turn leads to the strongest candidate emerging.

### IT Strategy

Tessella developed a roadmap to guide the design of the new system. The core requirement was to accelerate the drug discovery process by allowing data, information and knowledge to be seamlessly shared across as many business functions as possible.

This requirement was realised through the design of a stratified information architecture, which split both information, and the applications that handle it, into three distinct layers:

Staging – which handles data of a transitory nature, such as data capture from instrumentation.

Persistence – which deals with long term storage and the management and provision of data warehousing.

Aggregation – which provides facilities such as data marts that pull together data and present it in ways that are useful to the business.

### The Benefits

The company has been able to move their lead products through research and into clinical ahead of expectations. They also anticipate their new environment will help them more rapidly generate follow-on clinical candidates.

They also have a solid foundation for further exploiting their innovative approach to cancer therapy and generating additional clinical candidates ahead of expectations.

In summary, Tessella's depth of expertise and innovative thinking has enabled this new drug discovery company to create real competitive advantage against its larger, less agile competition.

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