

# TECHNOLOGY DUE DILIGENCE

## DERISKING ACQUISITION AND INVESTMENT THROUGH INDEPENDENT EXPERT REVIEW

When investing in a company there are a number of technical risks that can remain hidden from conventional commercial due diligence such as:

- **KNOWLEDGE:** Where the technical capability and knowledge of the target organisation really sits. Is it in the leadership team, in specific individuals or did it leave with past employees or suppliers?
- **PERFORMANCE:** How does the target organisation's solution really sit in the competitive landscape from a technical point of view? What is really unique (or not) that should drive the transaction value?
- **IP:** What is the value of the intellectual property the target organisation owns? This is important beyond conventional patent analysis, in terms of technology implications and ease of design around.
- **ROADMAP:** What are the implications and liabilities of acquiring and modifying the existing technology solution compared to building one from scratch internally or with other partners?

It is vital that all of these risks are exposed prior to acquisition. Unfortunately, the natural motivation of the target organisation can be to oversell itself and in so doing to disguise these things.

### WHAT IS TECHNICAL DUE DILIGENCE?

Technical due diligence is the analysis and evaluation of people, processes, products, patents and potential in an organization prior to an acquisition or an investment. The objective is to identify:

- Technical risks to the investment and to evaluate the costs to mitigate these risks;
- Opportunities for growth after the investment to help meet the business objectives;
- Strengths of the acquisition that should be preserved and/or built-upon moving forward.

### WHY IGNITE EXPONENTIAL?

The commercial experience of our team, combined with the 75+ technology experts in our sister unit, Plextek, enables us to offer a unique, blended and practical perspective when companies are looking to acquire or invest in new technical capabilities. We work for both private and public sector clients including governments, financial investment firms and manufacturers, assisting with strategic evaluation and decision-making to inform stakeholders, identify risks and improve operational and business effectiveness. Our contribution is particularly powerful when clients are seeking to move into new areas of technology or need a fresh view on how existing skills and assets can be exploited in new markets. We bring independent and innovative thinking to business and engineering plans, injecting realism based on having successfully undertaken and delivered several hundred projects.

### WHAT DO WE DO?

Due diligence isn't something every technical expert is cut out for. It not only requires a considerable and specific technical expertise, but an ability to translate this through commercial and financial terms too. As such we have a small number of expert consultants who tend to be involved in these activities. For example we've attached biographies for two key technical team members at the end of this document: **Steve Fitz** and **Damien Clarke**.

Technical due diligence often begins when an investor is just starting to consider an investment proposal or acquisition. At this stage the task is often a sanity check by one of our experts who tests whether the underlying technical proposition is sound. If the investment progresses towards a term sheet, we carry out more detailed, formal due diligence.

The collaboration starts when you brief our team on the strategic objectives of the acquisition or investment, introduce the target and your commercial analysis to date (if relevant) and highlight the risks and technical concerns you wish our team to focus on.

It is important that we meet the technical team in the target organisation to understand who is there and what they really know. This often takes the form of a combination of group and one-to-one interviews.

We are not patent attorneys, so where you wish for us to explore matters of intellectual property we routinely work alongside your internal counsel or external lawyers and find the combination of technical expert and lawyer to be more powerful than either in isolation.

We will share our findings with the commercial due diligence team as we progress and can capture these in a formal technical due diligence report concluding our analysis.

### WHAT IS YOUR PAST EXPERIENCE?

The team has experience of technical due diligence with a broad range of clients. Some examples include:

- We were selected by a **UK FTSE 100 company** to undertake due diligence on an acquisition target operating in the wireless test equipment segment. Our report highlighted **a major regulatory market issue that caused the company value to be reassessed**. The acquisition proceeded but at a significantly reduced price.
- A **venture capital investor** engaged us to determine whether a company's novel radio architecture had sufficient advantages over competing solutions to warrant funding the company. We were able to assess the technology in depth and provide support as due diligence progressed. We identified that while the technology had promise **it would never displace the incumbent chip supplier**. However we were able to identify a pivot for a new application in automotive noise reduction in which the company later had some success.
- A **major semiconductor vendor** asked us to conduct technical due diligence on a company with a leading position in mobile product radio frequency components prior to acquiring the company. Our specialists analysed the target company's key technologies to understand whether the "unique" features were in fact special or whether they were already adopted (or rejected) by others. The findings of the work were presented to members of the client's group board. On our advice, **the client decided not to proceed with the acquisition until certain technical risks had been reduced**.
- Working with a **global engineering conglomerate** to identify opportunities in mobile communications, we were asked to evaluate an upcoming acquisition. In due diligence leading to the transaction **we saved our customer tens of millions of dollars by identifying an important implication of the technology that internal processes had missed**.
- As part of a funding round, **a global VC** asked us to provide due diligence on a company developing a new communications product. This would assist the VC with their evaluation of a potential investment opportunity and reduce their risk from that investment. We brought to the table detailed knowledge of the technology being examined. Alongside the technology competence, we created market identifying competitor roadmaps and suggested pricing structures. **We validated the company's technical specification and gave greater confidence to our VC client** for their final decision.

If you are interested how Technology Due Diligence can help you navigate a future acquisition, please contact [alan.cucknell@igniteexponential.com](mailto:alan.cucknell@igniteexponential.com) to discuss your objectives further.

**Steve Fitz BA Hons Electrical Engineering  
Technology Director**

I am a graduate of the University of Southampton with a first class honours degree in electrical engineering, gained in 1983. I began my career spending 10 years working for GEC-Marconi Research developing ground-breaking communication system solutions, power electronics and high-speed sampling techniques.

In 1995 I joined Plextek and was engaged in a wide variety of RF system and product developments including cellular handsets, broadband wireless access and novel location devices.

I moved from Plextek Ltd in 2004 to take up a role that was partly industrial and partly academic (at the University of Essex). During this period I worked for various industrial organisations including BAE Systems and E2V Ltd. This allowed me to participate in teaching, research and industry activities and to greatly broaden my skill-set in the process.

In 2012, I re-joined Plextek Ltd as Technology Director, helping to steer the direction of the organisation; updating and expanding its technology offering. In 2019, I was a founding member of Ignite Exponential.



**Dr. Damien Clarke  
Lead Consultant**

I joined Plextek in 2016 and am now a member of the Data Exploitation group. Since joining I have worked on many projects covering a range of topics including: infrared gas sensors, UAV sensor advice, EO sensor modelling, microwave based security screening and wearable activity trackers.

My career began in the Sensors and Countermeasures Department at the Defence Science and Technology Laboratory (Dstl) researching remote sensing techniques using various EO sensors. Following Dstl I worked in industry for several years for various technology consultancies in the defence and security sector performing image processing, machine learning and geospatial intelligence research. Immediately prior to joining Plextek, I worked for two years as an independent contractor for Dstl providing expert advice on hyperspectral processing to the EO/IR Sensing Team within the Cyber and Information Systems Division. Damien has a PhD in Optoelectronics from the University of Surrey in "Long Wavelength Spectroscopy of Charge Dynamics and Spin Dependent Processes in Optoelectronic Materials" and an MSci in Natural Sciences from the University of Cambridge.

