

GUARANTEEING THE **UNEXPECTED**

HELPING TECHNOLOGIES CROSS THE
“VALLEY OF DEATH”
TOWARDS COMMERCIALISATION



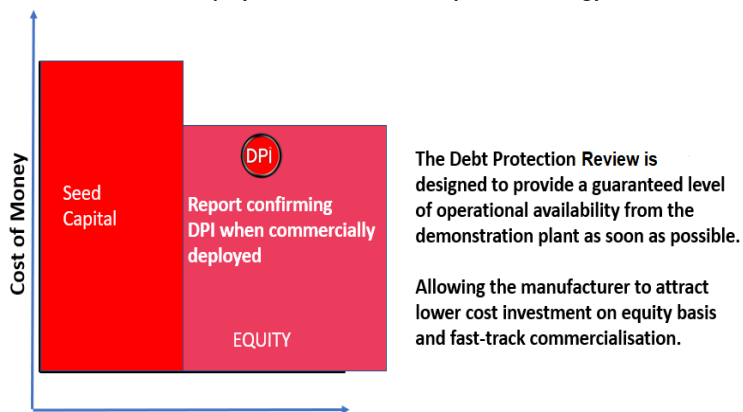
FINANCING THE FUTURE:

TECHNOLOGY INNOVATION



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Time to Commercial Deployment Vs Cost of Money for Technology Innovation



Time period is shorter and thereby reduces the need for more or prolonged expensive borrowing

At Allied, we see many manufacturers struggle to balance the competing needs of profitability and bankability from technology concept to commercial deployment. Also in demonstrating that all aspects of the technology are proven and have the capability of providing an evidenced and guaranteed revenue stream for a project developer.

Technology manufacturers also struggle when they bring a new concept to the market too early when it lacks the proven operational availability that funders require. To achieve this, they must run the plant for a sustained period and in doing so may need to borrow high levels of expensive seed or venture capital. But, entering the market too late means expending more time, raising more money than necessary, and it's possible the opportunity for the innovation may have passed by.

A project developer with a business plan based on no or little robust process operational evidence can find lenders refusing a project or lending at a higher rate of interest to compensate for the technology risk. The chosen technology should never appear to be a black box—lenders do not invest in the unknown.

Allied's Technology Pre-Accreditation Desktop Review Service

Our review service is designed for technology manufacturers to support them in reaching commercial deployment as soon as possible. The resulting benefits are;

1. Reducing the maturity timeline,
2. Reducing the need to borrow expensive money to keep the plant running under demonstration status and
3. Attracting lower cost equity investment into the company if required and providing a fast track towards commercial deployment and export.

By reducing the usual expectations on technology maturity required by funders, of continuous operation's for two years, the requirement to further borrow expensive money such as Seed or Venture Capital is substantially reduced or removed.

With over 100 years of combined expertise in project management, finance and insurance Allied's team understands both the requirements of investors in seeking bankable projects to invest in and project developers in seeking financial close on their project. However, in most cases we have seen the consideration of the funders requirements left until last and often when the project developer has reached their financial limits.

Some of the most common mistakes in demonstrating a technology or promoting a project that we've seen erode the chances of securing financing or closing a sale, where Allied can provide a targeted solution;

Scaleup

Except where the scope of supply comes "off the shelf" from third parties, a scale-up of over say, 5 times for key components of the technology will cause concern for investors that the scaled-up unit is going to work as described. Systems need many continuous operational hours to validate the units projected life and to demonstrate the reliability of the system at the increased scale.

Testing under real conditions

Testing a technology or operating a demonstration facility shielded from real working and feedstock conditions could significantly distort the performance of the technology. For example, using super-refined feedstock for a new biomass energy facility does not demonstrate the technology will work on the dirtier and less consistent biomass that is normally available commercially.

Controlled testing is useful to validate the science behind the process, but operational availability under real working conditions with "as received" feedstock is a requirement to validate a well-engineered system.

Manufacturers declare commercialisation too early

There is a lot of pressure on technology manufacturers to get their technology commercialised and selling. In the years it can take in development from concept to commercial deployment they will have invested more than just money into the technology. At this stage, understandably, the biggest believers in the technology are also generally part of the company.

Premature declarations that their innovation is commercially ready can lead to problems when being commissioned in a project development, which hurts both the project developer and the technology manufacturer's credibility and often threatens overall success.

Moreover, large potential investment partners, EPC contractors and strategic partners will see through the hype and avoid working with the technology and the project developer.

Third Party Verification

In moving from demonstration to commercialisation under real conditions without a reputable third-party expert to validate the projected life of the technology is a false economy. Attempts to skip this key step and instead rely solely on their internal work to reduce consulting fees and start generating revenue can result in higher overall cost

Funders don't like risk - especially when technology is new or has little or no track record; they are underleveraged.

Typically, within every major capital project or large asset acquisition, there are three principle risks; financing, commercial, and operational. The project sponsor takes the financing risk, and the commercial risk of there being a market for the output of the investment and is remunerated accordingly.

However, what has caused issues and, in many cases, transactions to flounder, has been the issue of who should take the operational availability risk of any new technology acquisition.

Your Clients Debt Providers offer less debt, because of availability risk. Sponsors are committed to investing more equity. Allieds Desktop Review Service provides manufacturers with knowledge that their technology is fundable when deployed in a commercial situation.

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