Written by Jim Seffrin, Director, Infraspection Institute
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Jim Seffrin, Director, Infraspection Institute Savvy business professionals recognize the importance of capital when undertaking any new project. Failure to properly capitalize a project can have disastrous consequences— *particularly when a business does not have the key resources it needs*.

Unfortunately, in the aggressive marketing of predictive maintenance (PdM) technologies, it is relatively easy to spawn and perpetuate fallacies regarding the need for certain resources. One prime example is infrared thermography—*often associated with the term 'Simply point and shoot.'* Coupled with the promise of quick and substantial paybacks, facility managers will readily invest thousands of dollars in hardware and software, only to sometimes be disappointed.

To be successful with your PdM initiatives, it must be understood that such efforts (and technologies) are reflective of both art and science. As such, they require humans equipped with proper tools, appropriate training and sufficient field experience. Ample time to conduct testing and analysis also is needed.

Undercapitalizing manpower is often the greatest threat to PdM—*and what can ultimately lead to program failure*. In setting up a PdM program, the most common mistakes include inadequate staff and training and not enough time for data collection and follow-up testing.

When considering implementation of any PdM program, one must first begin by honestly assessing the amount of manpower required. For maintenance teams already working at capacity, it is unrealistic to expect that existing personnel will have several hours to dedicate to data collection and analysis each month. If necessary, consider adding personnel or redistributing responsibilities to ensure that technicians will have sufficient time available. In addition to technicians, companies must be certain to allocate or hire suitable support staff as

well.

Because a PdM program is only as good as its technicians, training is crucial—*something to be viewed as a long-term investment rather than a one-time minimal expense*. When training is under consideration, make certain that course curricula are adequate for the intended inspections and taught by experienced instructors. Independent training firms may offer a better value than technology vendors since their focus is on training rather than future equipment sales.

While it is easy to focus on the promise of reduced downtime and labor, these are downstream benefits. The early stages of a PdM program demand significant time for data collection and analysis. Although some technologies can provide instant results, others rely on trending. In such cases, it may take several inspections to obtain meaningful data. In addition to data collection in the field, time must also be allocated for analysis and report generation. Depending upon the technology, report time might call for the same amount of time as data collection.

Once corrections or repairs have been made as a result of a PdM inspection, follow-up testing should be performed to ensure those actions were effective. Facilities that fail to re-inspect run the risk of an unplanned outage. Follow-up inspections are the final step in verifying that a problem has been solved.

To ensure their PdM programs are successful, companies should always seriously consider the necessary human capital—*not just the hardware and software requirements*. The proper investment in PdM technicians and support personnel can pay enormous dividends and help drive program longevity.
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The opinions expressed in this Viewpoint section are those of the author, and don't necessarily reflect those of the staff and management of *Maintenance Technology* magazine.

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