BEST PRACTICE
Risks Associated with New Technology

Testers need to answer these three questions when the project they are testing utilizes new technology:

- Is new technology utilized on the project being tested?
- If so, what are the concerns and risks associated with using that technology?
- If significant risks exist how will the testing process address those risks?

The following are the more common risks associated with the use of technology new to an IT organization.

- Unproven technology
  The technology is available but there is not enough experience with the use of that technology to determine whether or not the stated benefits for using that technology can actually be received.

- Technology is defective
  The technology as acquired does not work in the specified manner. For example there could be incompatible processes in building software using the agile technology, or a flaw in the hardware circuitry.

- Inefficient technology
  The technology fails to achieve the productivity gains associated with that technology.

- Technology incompatible with other implemented technologies
  The technologies currently in place in the IT organization are incompatible with the new technology acquired. Therefore, the new technology may meet all of its stated benefits but the technology cannot be used because of incompatibility with currently implemented technologies.

- New technology obsoletes existing implemented technologies
  Many times when vendors develop new technologies, such as a new version of software, they discontinue support of the existing software version.

- Variance between documentation and technology execution
  The manuals and instructions associated with using new technologies may differ from the actual performance of the technologies.

- Staff not competent to use new technology
  Training and deployment processes may be needed to assure the organization has the adequate competency to use the new technology effectively and efficiently.

- Lack of understanding how to optimize the new technology
  Studies show that most organizations only use limited aspects of new technology.

- Technology not incorporated into the organization's work processes
  This is typical implementation of new technologies at technology maturity Level 1. At this level, management cannot control how the new technology will be used in the IT organization.

- Obsolete testing tools
  The implementation of new technology may obsolete the use of existing testing tools. New technologies may require new testing methods and tools.

- Inadequate vendor support
  The IT staff may need assistance in using and testing the technology, but are unable to attain that assistance from the vendor.

References

Guide – CSTE Common Body Of Knowledge, V6.1