

Technology Transfer Invention Disclosure Process Details

In moving the Laboratory's technologies from the lab to the marketplace the Technology Transfer Division (TT) is faced with the challenge of identifying the most promising commercial opportunities during the invention disclosure process. One of the most difficult aspects of this process is selecting promising business opportunities among the constant stream of LANL inventions that are technically strong, compelling and potentially important. The mission of TT in this regard is to find applications outside the Laboratory that benefit society as well as to produce commercial value from LANL's intellectual property.

Laboratory inventions are protected through patenting in order to meet both the goals of revenue generation—by connection to commercial entities through licenses, CRADAs, and Work-for-Others—and the need to protect intellectual property for the development of research programs. The prioritization system used by TT consists of five categories described below. If you have any questions about this process, or would like to discuss how your technology has been assessed, please contact a TT representative.

Category I –Immediate Commercial Potential

Inventions that demonstrate clear commercial potential with little or no risk are uncommon. Generally, these inventions reflect the highest commercially relevant technologies from which the Lab is most readily able to derive revenue by out licensing agreements. In general, Category I technologies are mature and developed to the point that a convincing sales pitch can be made to an educated investor or partner. When these technologies are identified, they are given prioritization for patent protection based on their inherent value and expected return on investment. Technologies that meet the Category I classification are characterized by the following attributes:

- A strong, expressed intent from a commercial entity to license for use outside government markets. In many cases, a license for background IP may exist and the invention will increase the value of the relationship, or a negotiation may already be in process.
- A strong intellectual property position, including clearly defensible intellectual property in which both US and international rights can be preserved.
- Clear lines of ownership of the intellectual property with cooperative institutional affiliation for any non-LANL co-inventors.
- A large, well understood, commercial market with a quantified addressable market.

Category II-Possible Commercial Potential, Marketing Period Required

Inventions that have near to mid-term potential to generate revenue through licensing and/or CRADAs but have not yet generated substantiated business leads will be subject to a marketing effort. This marketing process is conducted by TT staff with the goal of identifying both the commercial interest and the suitability of the technology to impact a specific market. Category II technologies are generally characterized by the following:

- The technology has reached a level of development that allows description of the potential benefit to a partner or investor. This includes a demonstrated proof of

- principle and some initial experimental verification or technical validation of performance.
- A strong intellectual property position, including
 - clearly protectable intellectual property; and
 - clear lines of ownership with cooperative institutional affiliation for any non-LANL co-inventors.
 - A defined market with large potential and accessible licensees confirmed by market analysis based on the potential performance of the technology.

Category III-Further Development Needed

Technologies that have longer-term or limited potential to generate revenue through licensing and/or CRADAs are generally not patented until they become more defined and/or mature. There are several possible reasons for a commercial opportunity to be considered immature including, but not limited to: limited or unidentified markets; an inability to clearly and convincingly define potential commercial benefits; or a very early stage technology with limited reduction to practice. Category III technologies are generally characterized by one or more of the following:

- Uncertainty in the ability to identify and attract licensees.
- Technology is at an early stage of development for which a description of the benefit to a profit-seeking entity is hard to formulate or is not compelling.
- Weak intellectual property position, including
 - intellectual property that is not clearly protectable due to early stage, incomplete description, obviousness, or crowded patent arena; and
 - unclear lines of ownership or non-LANL co-inventors with non-cooperative institutional affiliation.
- A market with limited potential or difficult to engage licensees.

Category IV –Recommend Filing for Programmatic Value

These technologies have long-term or very limited potential to generate revenue through licensing and/or CRADAs in commercial, non-government applications but do have significant value for securing programmatic funding or are critical in national security applications for which patent protection would engage a non-government producer of the technology.

Category V –Recommend Assessing for Programmatic Value

These technologies have long-term or very limited potential to generate revenue through licensing and/or CRADAs in commercial, non-government applications. The value to program development is also limited.