

Definitions from the Act on the Principles of Financing Science	TECHNOLOGY READINESS LEVELS
<p>Fundamental research - original experimental or theoretical research work undertaken primarily to acquire new knowledge of the fundamentals of phenomena and observable facts without a view to direct commercial use.</p>	<p>Level I - the basic principles of a phenomenon have been observed and described - the lowest level of technology readiness, meaning that research has been initiated with a view to using the results in future applications. This level includes, but is not limited to, research into the basic properties of the technology</p>
<p>Industrial research - research aimed at the acquisition of new knowledge and skills for developing new products, processes and services or for bringing about significant improvements in existing products, processes and services; this research involves the creation of components of complex systems, the construction of prototypes in a laboratory environment or in an environment simulating existing systems, particularly for assessing the suitability of the types of technology, and the construction of the pilot lines necessary for this research, including for generics.</p>	<p>Level II - the concept of the technology or its future use is identified. This means starting the process of exploring the potential use of the technology. Since the basic principles describing the new technology have been observed, the practical application of the technology can be postulated, which is based on predictions. There is not yet any evidence or detailed analysis to support the assumptions.</p> <p>Level III - the critical functions or concepts of the technology have been analytically and experimentally confirmed. This means that analytical and laboratory studies have been conducted to confirm the predictions of the scientific studies of selected components of the technology. This includes components that are not yet integrated into a whole or are not representative of the technology as a whole.</p> <p>Level IV - technology components or core subsystems have been verified under laboratory conditions. This process means that the core components of the technology have been integrated. This includes 'ad hoc' integrated models in the laboratory. A generic representation of the target system under laboratory conditions has been achieved.</p> <p>Level V - technology components or core subsystems have been verified in a near real-world environment. The core components of the technology are integrated with real-world enablers. The technology can be tested under simulated operational conditions.</p> <p>Level VI - a prototype or model of a system or subsystem of the technology has been demonstrated in near real-world conditions. This means that a representative model or prototype of a system, which is significantly more advanced than the one tested at Level V,</p>

	<p>has been tested under near real-world conditions. Testing at this level includes testing of a prototype under laboratory conditions replicating real-world conditions with high fidelity or under simulated operational conditions.</p>
<p>Development - the acquiring, combining, shaping and using of currently available scientific, technological, business and other knowledge and skills for the planning of production and the creation and design of new, altered or improved products, processes and services, excluding work involving routine and periodic changes made to products, production lines, manufacturing processes, existing services and other operations in progress, even if such changes may be improvements, in particular:</p> <p>(a) the development of prototypes and pilot projects as well as the demonstration, testing and validation of new or improved products, processes or services in an environment which constitutes a model of the actual operating conditions, the main aim of which is the further technical development of products, processes or services whose final form has not been determined,</p> <p>(b) the development of commercially usable prototypes and pilot projects where the prototype or pilot project represents a final product ready for commercial exploitation and where it is too expensive to produce for demonstration and validation purposes only;</p> <p>development does not include routine or periodic changes made to products, production lines, manufacturing processes, existing services and other operations in progress, even if such changes may be improvements.</p>	<p>Level VII - a technology prototype has been demonstrated in an operational setting. The prototype is almost at operational system level. This level represents a significant advance over Level VI and requires demonstration that the technology under development is operationally feasible. Research at this level includes testing of prototypes on so-called test platforms.</p> <p>Level VIII - research and demonstration of the final form of the technology has been completed. This means that it has been confirmed that the target level of the technology has been reached and the technology can be applied under the conditions envisaged for it. Practically, this level represents the end of demonstration. Examples include testing and evaluation of systems to confirm that design assumptions have been met, including those relating to logistical security and training.</p> <p>Level IX - testing of the technology in real-world conditions has had the intended effect. This indicates that the technology being demonstrated is already in final form and can be implemented in the target system. Among other things, this includes the use of the developed systems under real-world conditions</p>