

The Fraunhofer Institute for Technological Trend Analysis INT provides scientifically sound assessments and counseling on the entire spectrum of technological developments. On this basis, the Institute conducts Technology Forecasting, making possible a long-term approach to strategic research planning. Fraunhofer INT constantly applies this competence in these competences into projects tailor-made for our clients.

Over and above these skills, we run our own experimental and theoretical research on the effects of ionizing and electromagnetic radiation on electronic components, as well as on radiation detection systems. To this end, INT is equipped with the latest measurement technology. Our main laboratory and large-scale appliances are radiation sources, electromagnetic simulation facilities and detector systems that cannot be found in this combination in any other civilian body in Germany.

For more than 40 years, INT has been a reliable partner for the Federal German Ministry of Defense, which it advises in close cooperation and for which it carries out research in technology analysis and strategic planning as well as radiation effects. INT also successfully advises and conducts research for domestic and international civilian clients: both public bodies and industry, from SMEs to DAX 30 companies.



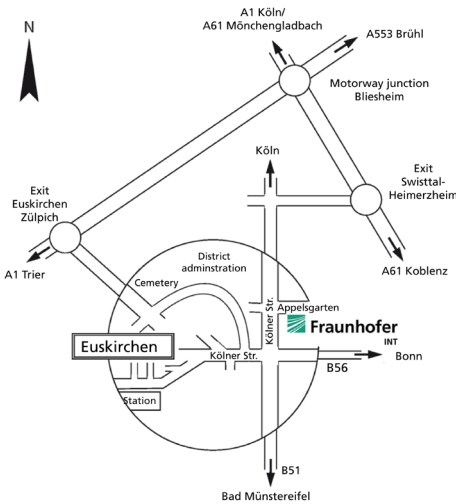
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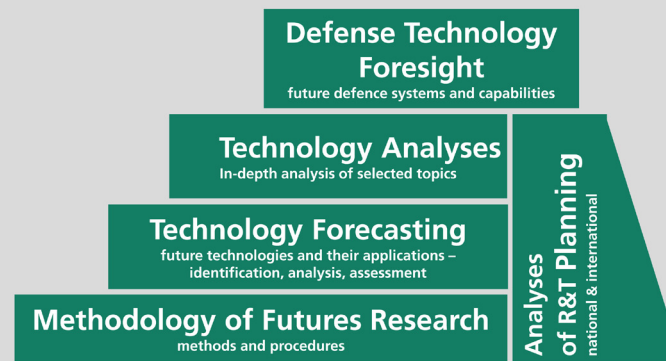
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**BUSINESS UNIT
DEFENSE TECHNOLOGY
FORESIGHT**





The Business Unit “Defense Technology Foresight (WZA)” combines all the services that our interdisciplinary team of scientists and engineers in the TASP Department (Technology Analyses and Strategic Planning) provides for the Federal Ministry of Defense and its downstream offices (particularly the Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support and the Bundeswehr Planning Office).

Our technology-oriented futures research serves to provide clients with reliable orientational knowledge and decision guidance on likely future developments in science and technology, including the defense-technological and military implications of such developments. The main spotlights are on the early detection of emerging technological developments, the identification of related opportunities and risks, and a client-specific technology assessment. Observing and analyzing international planning processes and strategies in defense research and technology (R&T) also supports the planning task, as does the drawing of recommendations for the respective national planning processes.

Our services are provided by a team of scientists and engineers with long-term experience in this task. Altogether, they can put into effect a comprehensive professional expertise in all relevant fields of science and technology, complemented by a thorough competence in methodology and foresight processes. This combination enables us to provide a high quality of scientific futures research, confirmed by our internal peer-review processes. Due to our long-term experience in serving defense authorities’ needs we can make our results available in a form tailored for further processing by our clients.

OUR APPROACH

Our methodology is based on the understanding that technological innovations are usually preceded by basic research. So our starting point is the identification of particularly dynamic technological „core topics“ in the research phase and the forecast of their expected future development.

In the methodological foreground are technology scanning and monitoring: the directed and undirected search for suitable themes and statements in the literature concerned. The central element is the screening of key sources, which we define as a set of sources that allows the expectation that no significant technology development will be overlooked. We use other methods in support, such as bibliometrics (quantitative „measurement“ of publications and quotations), keyword analysis, data/text mining, expert survey methods (e.g. the Delphi method) and various participatory methods characterized by a structured dialogue with experts and military users. This practice is supplemented by systematically monitoring the international R&T planning landscape.

For bibliometrics we have developed our own software toolbox that allows us to analyze specific characteristics of research topics, and so to gain information on their expectable future developments („Trend Archeology“).

OUR SERVICES

As an independent, neutral facilitator between planners, decision makers and military users, as well as between technology generalists and expert researchers, we provide our clients with a view “out of the box” on technological issues. We offer the following services:

- Technology forecasting and comprehensive technology foresight for defense applications across the whole technological spectrum
- In-depth analyses of specific technology issues (classification, prospects, environment, consequences, policy recommendations), also using quantitative methods (bibliometrics, patentometrics, data/text mining)
- Brief expert opinions/ad-hoc statements on individual technological topics
- Technology-oriented assessment of and contributions to the development of military capability requirements
- Technology assessment together with the client, using various methods of „assessment gaming“
- Participatory workshops on the future for stakeholders, systematic expert surveys
- Analysis of international defense R&T planning and strategies, international cooperation and collaboration opportunities, planning assessment of technologies, R&T country reports
- R & T information systems