

Technology Management Consulting for Industry



Maximise technology resources for business advantage

As developing countries become full participants in the global economy, millions of new consumers will exert unprecedented demands on energy, water, mineral and other resources, and they will expect high levels of health care and personal mobility. New companies with lower costs, novel business models and huge local-market growth potential will emerge to serve these new consumers. Established companies will need to become more nimble to remain competitive. With proven expertise in technology strategy and management, CRA International can help your company select and efficiently deploy the innovative technology it will need to succeed in these challenging, rapidly-changing markets.

Today's imperative: effective technology management

As business portfolios become more specialised, and competition from low-cost economies intensifies, effective management of industrial technology has become more urgent. But recognising the need for improved management is far simpler than achieving it. Decision-makers are wrestling with tough questions. How do we:

- Exploit technology to create value for the business?
- Influence the development and application of technology to ensure its relevance to our business?
- Access technology innovations to ensure we remain competitive?
- Decide what to do in-house and what to outsource?
- Deploy technology efficiently in our operations?
- Make technology decisions in light of carbon issues and future scenarios?

CRA – helping you answer the questions

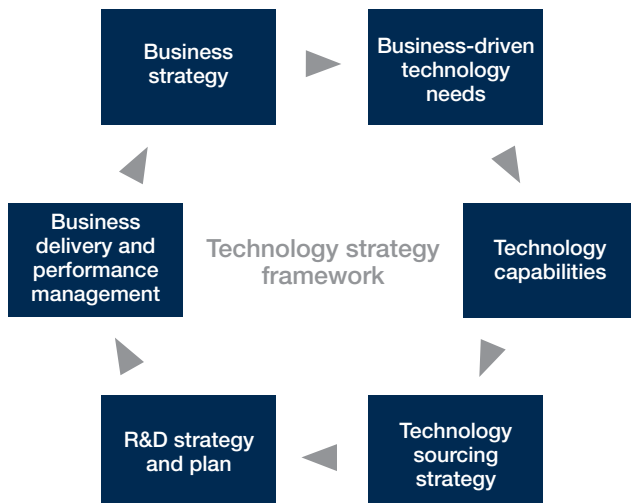
For decades, our industry-focused consultants have helped companies wrest more value from industrial technology spending. Developed from a strong base of technical and commercial experience, our approach helps clients understand and employ the power of synergy: technology, business strategy and performance management must all work together to create value. We've used our knowledge to develop best-in-class technology management methodologies that are successful across industry sectors. And we work with our climate change group to address carbon management challenges through this integrated approach.

- Technology processes: enable the effective and efficient execution of the technology strategy
- Technology organisation: aligns leadership, values, decisions, rules, structure, people and performance systems to meet technology objectives
- Technology resources: the right mix of internal and external sources to maximise the return on technology investments

We understand the power of synergy: technology, business strategy and performance management must all work together to create value.

How do you get there?

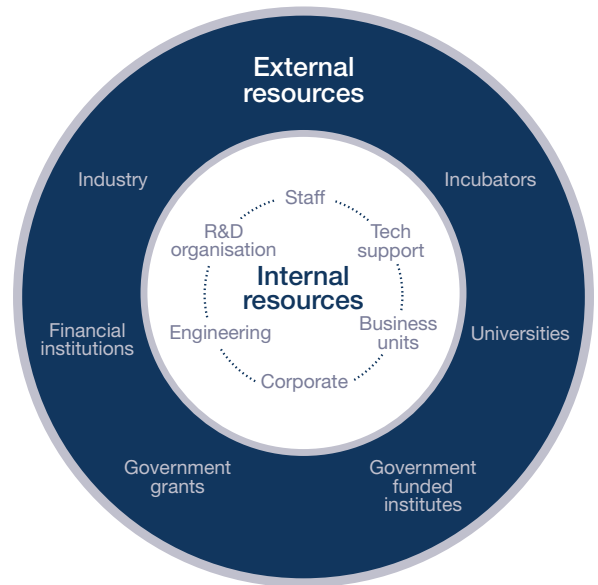
CRA employs a framework that enables our clients to create the vital link between business strategy and technology strategy. This framework also links strategy to performance, which in turn sustains business advantage.



Technology management in action

We help our clients build and shape the four essential components of a technology management system.

- Technology strategy: defines the way a company will exploit technology to gain competitive advantage



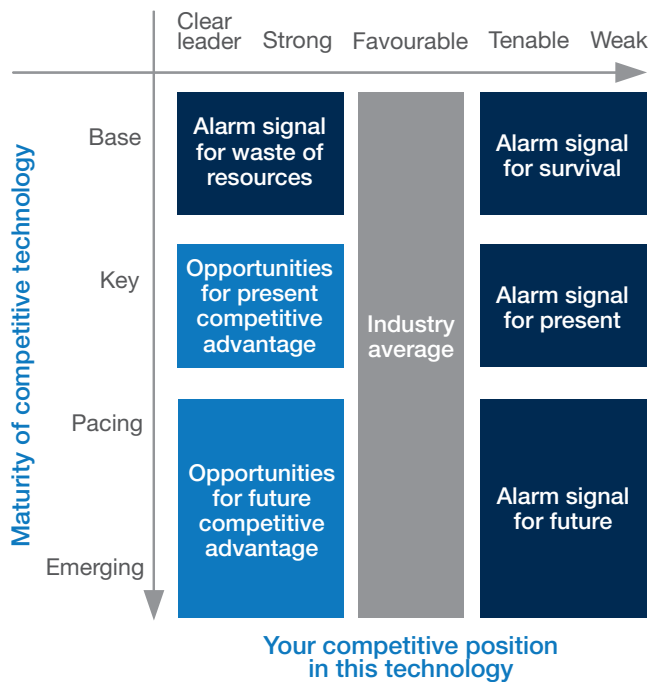
Putting the right technology management system in place ensures businesses get the maximum leverage from available technologies and creates effective links between operations and technology functions.

CRA strengths

- We understand the potential of technologies and their risks, so we can provide quality feedback and robust recommendations.
- We work across traditional value chains and industry sectors to bring fresh ideas and models for growth.
- We don't expect clients to train our people.
- We work effectively in all corporate cultures.
- We help both blue-chip and aspiring enterprises deliver outstanding results quickly.

Portfolio considerations

Understanding your company's competitive position in those technologies that are critical for success today and in the future ensures your technology portfolio remains healthy.



Case studies

International Oil Company, R&D organisation for the future

CRA helped a US-headquartered oil company create an R&D organisation for the future, by pulling in best-practices from companies recognised as R&D leaders to aid in the design of new facilities, an optimal R&D organisation, a flagship R&D and learning centre facility, and a leadership model. We assisted in building the technology development portfolio across the full energy value chain.

Major pharmaceuticals company

CRA was retained to develop a technology strategy to support improvements in drug discovery and development productivity. We profiled the company's existing technology positions and assessed technology opportunities for its future. We created strategy options, supporting them with insights into technology and supplier evolution, and we considered how they could adopt new

technology. Finally CRA supported the key implementation decisions to divest existing technology, license/acquire new technology and monitor/experiment with emerging technology.

International chemicals company

CRA was retained by the board of an international chemicals company to help develop a twin-track technology and innovation strategy. We provided an independent technology "health-check" of current key processes to support the medium-term investment strategy. We then identified relevant industry mega-trends and helped the businesses define new technology platforms for longer-term growth.

UK low-carbon energy technology developer, strategy to fund new technologies

CRA supported the funding strategy of a public/private institution that was formed to accelerate the deployment of low-carbon energy technologies. We helped create a transparent approach to prioritising the energy technologies to be funded. This required integrating scenario thinking, technology profiles and sophisticated modelling tools into a decision-making framework.

US oil company, organisation improvement

CRA worked with a US oil company to improve the effectiveness of its problematic shared-services model for technology. We recommended technologies to be reinforced, deemphasised or outsourced. We also proposed a new organisational structure that clustered activities in groups that shared customers, information and facilities.

Latin American National Oil Company, technology strategy and processes

CRA worked with a Latin American oil company to help it rationalise its technology platforms to focus resources more effectively on business-critical technology. We identified technology skills gaps and management system deficiencies. We also created a plan to address these issues and the training of senior staff charged with managing technology.

For industry

CRA excels at helping companies develop and implement industrial technology strategies that create business advantage. We identify critical technology areas, define access options, put processes in place to manage technology development and deployment, and provide independent assessments of competitive advantage. We also help companies find partners and commercialise technologies.

For suppliers

We help technology suppliers with strategies to develop and commercialise new technologies, both through identifying market opportunities and through working with financial investors and business customers to bring technologies to market.

Technology management consulting

- Technology strategy development
- Developing and optimising technology portfolios
- Technology process development
- R&D organisation and innovation culture
- Resource and competency management
- Optimising technology supply chains
- Improving technology deployment
- Supporting commercialisation of new technologies

Related capabilities

- Business strategy development
- Supply chain strategy
- Organisational design

For financial clients

We help financial investors understand the real and potential future value of industrial technology in companies they are evaluating, so they can better assess their fair value.

For government clients

CRA helps governments and regulators manage the level of technology investment, innovation and skills development in oil, gas, chemicals, utilities, pharmaceuticals and industrial sectors of the economy.

To learn more about CRA's Industrial Technology Management Consulting capabilities, please contact us.

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About CRA International

CRA International is a leading global consulting firm that offers insightful and rigorous business, financial and economic services to industry, government and financial clients. Founded in 1965, CRA has grown with offices now across North America, Europe, Middle East and Asia Pacific.

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