



## Innovation in the chemical industry

### Green and sustainable chemistry

At Oakland we help our chemicals and materials client's to address the challenges posed by market trends and dynamics especially with respect to delivering performance in the face of low cost competition. Our coverage of our client's markets is unparalleled with experience across a range of technology areas with different end-market targets.

#### Types of projects might include ↪

- Identifying and verifying the market opportunity and receptivity to novel chemistry and materials enabled product solutions
- Finding technologies to functionalities needed in market or for manufacture
- Evaluating the disruptive potential and associated barriers to adoption for new chemistries and materials in specific market applications
- Assessing the readiness of an R&D portfolio to deliver business line goals
- Creating technology and product roadmaps to help customers plan their innovation enable business growth

What emerging technologies will disrupt the market?

Who should you partner with to develop breakthrough technologies or enter new market space?

Where should you play in the global market?

How to stay ahead of the competition?

# 20+

Nationalities

# 93%

Customer satisfaction rating

# 80%

Of consultants have PhDs

# 20+

Years' experience

Trends in the chemicals industry



What technologies can change the material properties of packaging to make them more sustainable?



## Trends in the chemicals industry

### Sustainability ↪

Chemical companies will explore sustainable technologies for the benefits of the industry as well as society.

- Increase production efficiency
- Reduce energy consumption/ carbon footprint
- Use renewable feedstocks
- Reduce waste
- Improve end of life solutions

### Industry 4.0 ↪

Industry 4.0 will transform the chemical industry with automation, data technology, cyber-physical systems, cloud, robots, AI and IoT.

- Promote strategic growth
- Increase operational efficiency
- Improve supply chain management
- Reduce environmental impact

### Driving up value through differentiation ↪

Many of the key technological developments in the next decade will require advanced materials from the chemical industry, which provide opportunities for chemical companies to move up the value chain.

- Innovative materials and formulations for 3D printing
- New chemistry for energy storage solutions
- Materials and processes for printable electronics, central to the development of sensors, wearables and smart packaging

## Case Study: Sustainable Packaging Technology

A client would like to explore technology options to reduce the environmental impact of its packaging

### Challenge ↪

- Identify a more environmentally friendly packaging material
- Find out what technologies are needed to achieve this
- Identify relevant companies to partner with

### Approach ↪

- Oakland's PhD qualified scientists undertook a comprehensive technical review to identify and evaluate relevant technologies across different industries
- Leading technology providers were contacted to further assess the performances of their technologies against the client's specific requirement
- Recommendations were made based on the research findings and Oakland's in house knowledge

### Success ↪

- Client set up a joint partnership with a recommended technology owner

Substantial investment has been made to improve the sustainability of their packaging



## Contact us

For more information, please email us at [info@oaklandinnovation.com](mailto:info@oaklandinnovation.com) or visit [oaklandinnovation.com/markets/#chemicals-and-materials](https://oaklandinnovation.com/markets/#chemicals-and-materials)