

RESEARCH REVIEW

Innovation in chemicals: Is this as good as it's going to get?

In partnership with ICIS Chemical Business, Celerant Consulting examined two key issues. Firstly, just how important is innovation on the chemical industry's agenda today? Secondly, how does its stated importance compare with actual execution? If innovation really matters to the industry, then how good are companies at doing it for real? And what are the key obstacles in achieving excellence in innovation?

Key findings

Importance and role of innovation

- 68% of respondents indicate that innovation has become more important to their company's strategy in the last five years
- 57% of respondents confirm that innovation function headcount has remained the same

Voice of the customer

- 74% of respondents state that innovation ideas are driven from direct customer insight

Innovation management

- 50% of respondents lack a formal system to measure innovation effectiveness
- 50% of respondents believe their company has become more efficient at implementing innovation

Obstacles to innovation

- 44% of respondents confirm that lack of funding and shortage of manpower are the key obstacles to innovation

Why?

While stating that innovation is an increasingly important part of their business strategy, most companies struggle with issues that include sourcing skilled staff and driving maximum return on innovation investment.

Who?

Interviews were conducted with 110 subscribers to ICIS Chemical Business. Some 57% of respondents were based in North America, with 37% based in Europe. Respondents were mainly senior managers, including 12% at CEO or President level.

How?

Respondents replied to personal invitation and the results were collated and analysed by ICIS and Celerant. The findings were jointly discussed by an 'expert panel' of eight senior industry figures during a roundtable conference earlier this year.

Insights

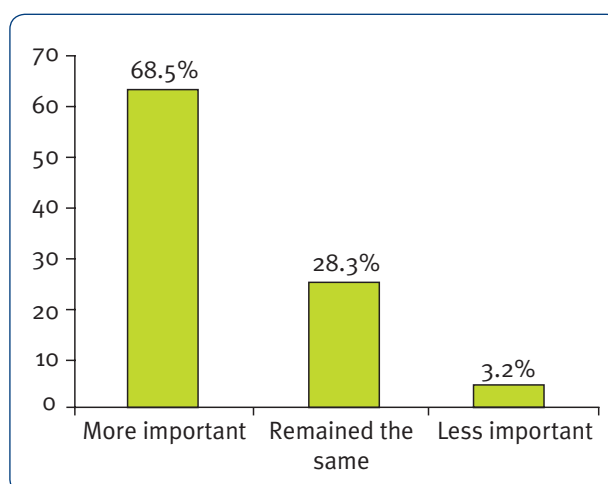
- Innovation doesn't work in isolation from other key functions within the business
- Innovation is increasingly driven from direct customer insight
- Innovation needs to be rigorously monitored, managed and measured
- The amount of time spent on each Innovation project needs to be carefully judged
- Collaboration is key – both within the innovation function and across the wider organisation

Key findings & observations

Has innovation become more important to the company strategy in the past five years?

According to 70% of respondents, innovation has indeed become more important to company strategy.

Innovation is seen by almost all companies in the chemical sector as a critical component to their success going forward. The importance of innovation has grown in the last 5 years. Innovation is key to ability to remain competitive, to attract talent to the industry, and **should** also be used to develop new products and processes that positively affect the environmental footprint of the industry.



Innovation drive: why do companies innovate?

As might be expected, companies are innovating for the most part to enter new markets with new products and to develop new products to remain competitive in existing markets.

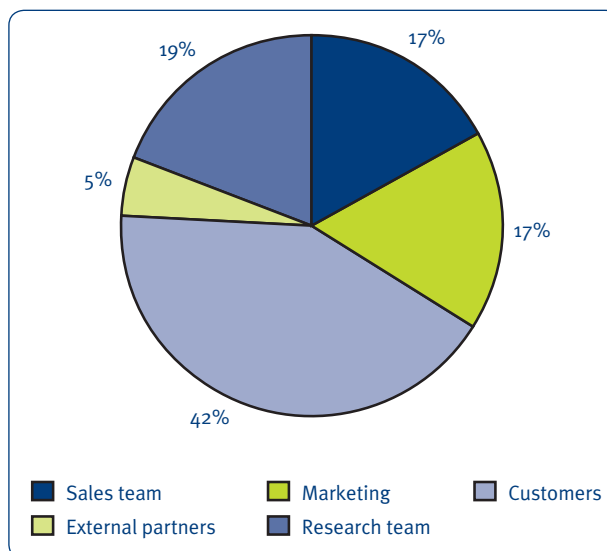
	Very important	Fairly important	Not very important	Not at all important
New product development to enter new markets	55%	34%	10%	2%
New product development to remain competitive in existing markets	59%	34%	5%	2%
Improvement of existing products to remain competitive	49%	35%	14%	2%
New process development for cheaper manufacturing	41%	37%	17%	5%
New process development for sustainability	34%	46%	14%	5%
Innovation to develop greener, safer products and processes	23%	51%	21%	5%

Innovation as a driver for more sustainable or ‘greener’ processes and products is only “fairly important”. The “very important” category is still dominated by economically driven arguments. But, expect rapid change, as companies becoming increasingly aware that the way they present themselves on environmental issues will have a direct effect on their ability to recruit and retain new, young and environmentally aware employees. Environmental track record will become a key performance indicator, with formalised and credible mechanisms such as the Dow Jones World Sustainability Index to rank companies in terms of sustainable operations playing a greater role.

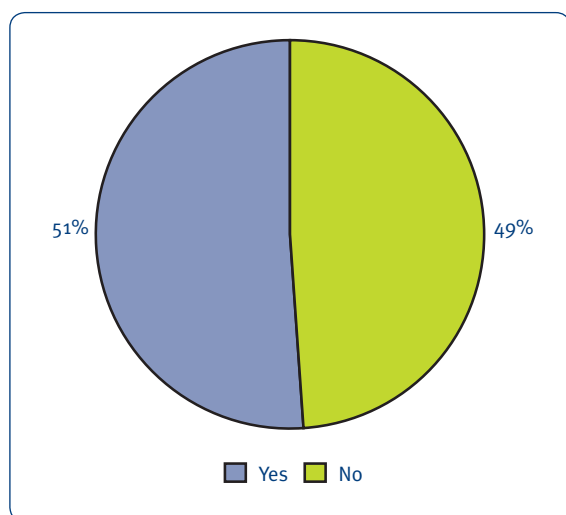
Which of these groups is most important in providing ideas for innovation?

Ideas from customers are the main drivers for the development of innovative ideas. In projects where a collaborative, joint effort is used to innovate there is an issue with the protection of Intellectual Property. 39% of respondents state this is an impediment to the successful commercialisation of innovation projects.

Customers are clearly seen as the most important group contributing input to innovation ideas.



Does the company have a formal management system and process in place to measure innovation effectiveness?



Nearly 50% of respondents currently lack formalised management systems and processes to control their innovation on an informed basis.

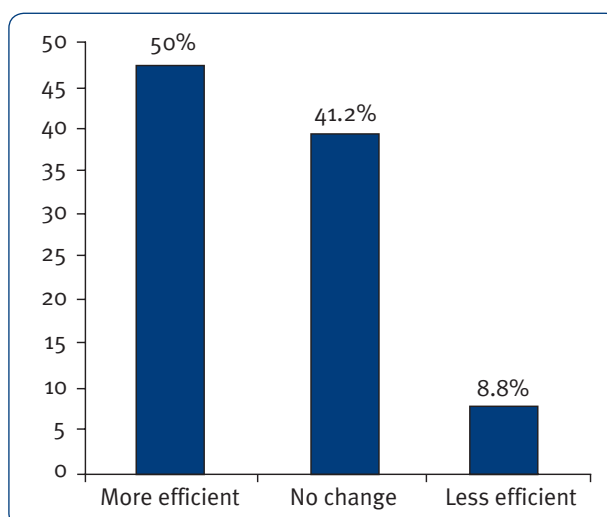
This suggests a lack of vital management information, such as innovation programme costs and meaningful timescales for delivery of results.

Accurate and appropriate measurement is fundamental to effective Innovation. Chemical companies need to be able to determine if and how innovation projects contribute to strategic and operational targets.

Has the company become more efficient in innovation implementation?

The stated increases in efficiency could be the result of more work being done in less time by the same number of people – increased effectiveness. Or there may be better focus on more important and productive tasks – increased efficacy (stated to be the preferable cause by the expert panel).

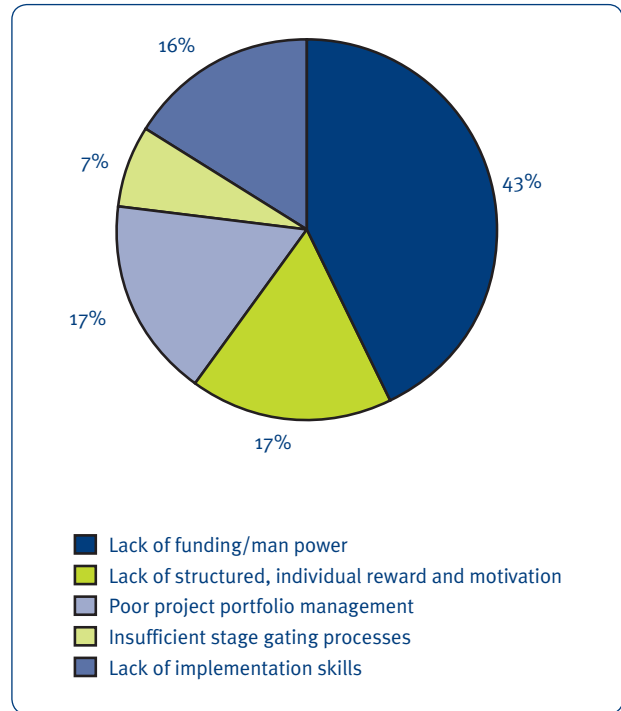
70% of respondents use ROI as their main innovation effectiveness metric. For those with no formal management system, how do they arrive at an ROI number?



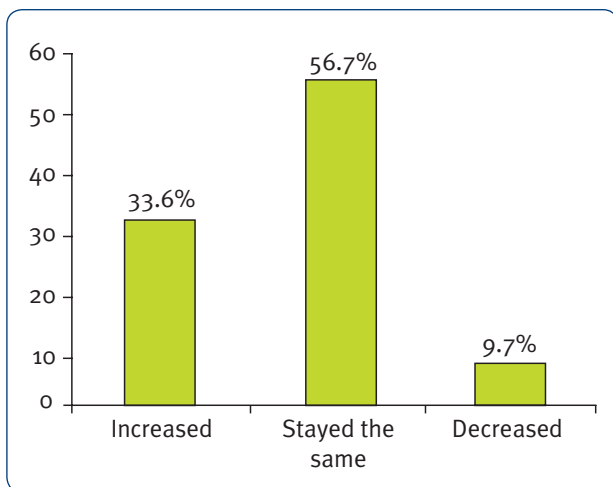
Key obstacles to delivering successful innovation projects:

Key obstacles to delivering successful innovation projects are lack of manpower (43%), poor project portfolio management (16%), lack of structured rewards & motivation (16%) and lack of implementation skills (15%).

Note that 43% of respondents cite lack of manpower as an obstacle to innovation. Yet less than 10% state that their innovation is less efficient than it was. How are they overcoming the obstacle of insufficient staff?



Development of headcount in innovation departments:



The number of people involved in innovation projects has remained the same according to 57% of respondents.

In the 'war for talent' that all sectors are engaged in, chemical industries will have to work hard to attract and retain their share of talent – especially when other sectors such as financial services are seen as 'cleaner' and offering better incentives.

Insights

Innovation doesn't work in isolation

Innovation has to plug into the whole value chain of the organisation and not be restricted purely to product development.

Innovation is increasingly driven from direct customer insight

Given the customer's role as primary source of innovation ideas, a major challenge is to integrate the customer voice right through the innovation process so that customers get what they want.

Innovation benefits from clear planning horizons, measurement and control

Risk taking (innovation) functions and risk averse functions (financial control) need to reach agreement on shared goals and they need to apply common metrics. For this to happen, the following conditions will be required:

- agreed common objectives up front clear and accurate benchmarking of the current situation with each innovation project
- clear plans that step through a sequence from the current reality to the end objective
- measurement tools to monitor progress
- a common culture of entrepreneurship where everybody is committed to controlled risk taking

Innovation timescales need to be carefully judged

Expert consensus is that short, mid and long-term horizons need to be applied to innovation development, on the basis of well-defined KPIs. With the right KPIs applied, in appropriate timescales for individual projects, ROI can be measured meaningfully.

Innovation needs to be monitored and managed

Right across the value chain, innovation needs to be managed carefully with a 'whole portfolio' view. And decisions to continue or 'stop and drop' need to be based on accurate data, not intuition.

“The thinking around and the concepts for innovation is well developed. We see this at the clients we work with, and this is a view that was again confirmed during the ICIS roundtable. However, particularly in companies where innovation is an underleveraged asset, we also see that there is a growing need to 'professionalise' innovation.

“Many organisations both within and outside the industry are often very skilled at creating innovations, but not set up to manage them as effectively as they might. We believe there are many opportunities to make the generation, capture and **implementation** of ideas more effective: by optimizing the customer interface through effectively integrating R&D with sales and marketing, by stimulating effective collaboration within companies, motivating people and by the more rigorous use of procedures and metrics to measure results. These operational improvements, which will ultimately drive greater value from innovation, can change the face of your business.”

Danny Van D'huynslager, Celerant's Chemical Sector Leader

Conclusion – collaboration is key

The ‘expert panel’ view on successful innovation in the future is that collaboration is needed. Collaboration – literally ‘co-working’ – starts inside the company with more involvement, and more constructive involvement, from a wider cross-section of internal stakeholders.

Internal collaboration leads to greater ability to reflect the voice of the customer in the outcome of innovation – creating what customers really want. It also allows improved interactions with other important groups, including suppliers, academics and, in some circumstances, competitors.

With a clearer sense of what is expected from innovation in the first place, combined with better interactions between stakeholders, more accurate monitoring and more creative business models, limited manpower will be able to achieve more, faster.

To really work for the chemical sector, innovation will itself require a more innovative approach.

We have offices in 10 different countries and we will always go where our clients need us to be.

If you want a conversation about the ways we can help your business achieve results, every time, you can call us on:

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