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Disruption and opportunity



Foreword

We are delighted to present the first PwC/Insurance Ireland CEO Pulse Survey, which was undertaken in early Summer prior to the Brexit vote. It reflects the views of nearly 50 Irish insurance leaders on a range of key areas critical to the business of insurance.

The survey reveals that over two-thirds of Irish insurance CEOs are prioritising business growth in the year ahead. However, they are concerned about a range of uncertainties. Over-regulation is the greatest perceived threat to growth with half saying that Ireland's regulatory regime is more demanding than other EU territories. Other challenges include low interest rates, the lack of available talent and rising costs. A third of those surveyed viewed the potential impact of Brexit as a concern. The speed of technological change, changing consumer expectations and cyber threats are also concerns, but global CEOs

are much more concerned about these threats compared to their Irish counterparts.

Despite these uncertainties, the majority of Ireland's insurance leaders see more growth opportunities now compared to three years ago. They are turning challenges into opportunities. Smart insurers aren't just driving down costs and bolstering margins in traditional business, they're looking at how to open up new sources of profitable growth and technology is central to this.

The survey highlights a high level of disruption expected to shake-up the industry, driven primarily by regulation, changes in customer behaviours and technology. Time will tell as to how the rise of FinTech will be a driving force for change. Innovation capacity, operational efficiency and digital trust are key areas where digital technologies are creating value. Just over a third (36%) of senior management say they are high users of advanced analytics.

Looking to the future, the survey highlights that finding business growth, innovation and containing costs are key priorities in the year ahead. A large majority confirmed that increased regulation and legislative

constraints will be the most significant trends impacting the Irish insurance industry in the next two to five years. The survey calls on Government to ensure that Ireland remains competitive in areas such as wages, rents and tax. The survey also sees the availability of key skills as a Government priority.

The insurers out in front are embracing technological disruption as a growth opportunity rather than a threat, and harnessing the creativity of their people to tap into new value chains and transform operational speed and cost. They're also seeking out new sources of data and making the most of client touch points to enhance customer experience and outcomes. With a vibrant and dynamic technology community and our highly talented people, we have a huge opportunity to continue to develop Ireland as an international insurance hub. But we need to ensure that we remain competitive, leverage digital to develop the products that clients demand at the price they want to pay and really collaborate with the FinTech start-ups.



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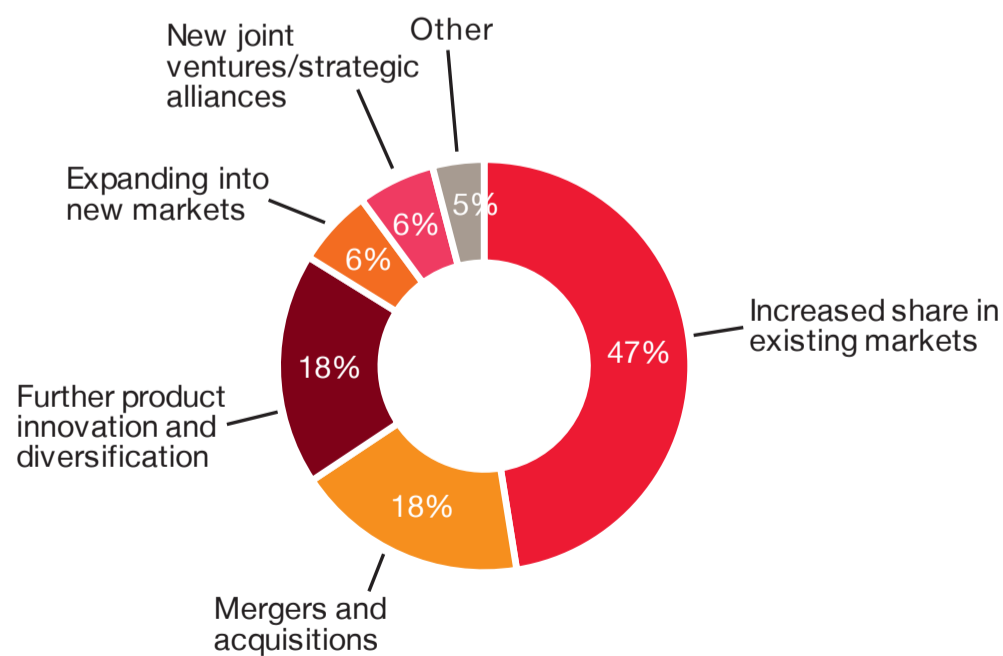
1. Opportunities, challenges and disruption

The survey was carried out by PwC and Insurance Ireland in Quarter Two 2016, prior to the Brexit vote.

Over half (59%) of Irish insurance CEOs believed there were more threats to their growth strategies than there were three years ago. However, a large majority (79%) of respondents also said that there were more opportunities for growth in their organisation compared to three years ago. Nearly half are planning this growth to come from existing markets while nearly one in five are planning a merger or acquisition with a similar proportion contemplating product diversification.

The survey highlights a range of uncertainties which may make it more difficult to manage the exposures, but uncertainties also open up opportunities as businesses look to insurance companies for risk analysis, advice and the protective coverage they need to navigate through this difficult landscape.

Chart 1: Growth opportunities in the next three years



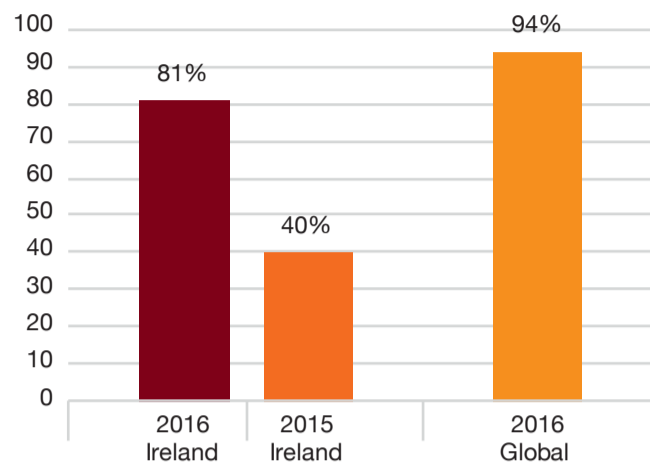
Risks

Over-regulation is considered the biggest risk facing insurance businesses based in Ireland (Chart 3, page 5) and this has more than doubled since the ranking in a similar survey last year. It is also considered as the top business threat for insurance leaders globally (PwC 2016 Insurance CEO Survey) and surpasses any other threats (Chart 2, page 4). Over a quarter of Irish insurance CEOs are concerned about inadequate regulation of companies selling into Ireland from other countries.

The PwC/Insurance Ireland survey also shows that nearly a third of Irish insurance leaders are concerned about embedding Solvency II. With Solvency II having gone live at the beginning of the year, its influence in European markets is clear. Many other markets also face significant changes, not only in prudential regulation but also in conduct and data protection regulation. Some of the regulatory changes are spurring insurers and providers of retirement products to consider augmenting or changing their advisor or broker channels. The impact of new regulations creates uncertainty about the

changes which may be coming and may act as a brake on innovation and expansion plans.

Chart 2: Over-regulation is considered the greatest threat to insurance growth



The low interest environment is the second greatest challenge for Irish insurance leaders with nearly two-thirds being concerned about its implications, including low investment returns.

Nearly half (44%) are concerned about cost containment. Because cost cutting by itself cannot ensure a boost in profits over the long-term, savvy companies are opting for sustainable process improvement initiatives that increase efficiencies and improve productivity.

Over a third believed that uncertainties around Brexit would be a key threat to their businesses and time will tell as to the extent of the impact. The closeness of the links between Ireland and the UK will need to be stronger than ever in order to survive the challenges that Brexit will bring. The

competitive advantages that Dublin offers as a centre of excellence for insurance include an existing reputation as a centre for international insurance and reinsurance, our highly skilled workforce, a pro-business environment, a similar common law system to the UK as well as an excellent transport infrastructure. Post-Brexit, Ireland will also be the only English speaking country in the EU.

Nearly half (44%) of Irish insurance CEOs see the limited availability of key skills as a threat to growth, up from 27% last year. According to Irish CEOs across all industries, the skills challenge in Ireland is a critical concern and has risen to an eleven year high. Given the scale of the skills shortages, it is not surprising that Irish insurance CEOs see that availability of key skills should be one of the Government's key priorities.

Over a quarter (28%) of respondents view the speed of technological change to be a key challenge while a similar proportion say that leveraging data analytics is a concern. Technology and innovation will be critical in delivering the outcomes stakeholders want at a cost that customers and investors are willing to pay. The insurers developing pre-emptive protection against cyber attacks or safer road usage through sensor-based pay-as-you-drive insurance show that it is possible to deliver more for less. Global insurance CEOs cite data and analytics and customer relationship management systems as providing the greatest potential contribution to improving engagement with stakeholders. But do they have the right information to drive this analysis? What the business knows about its customers is curtailed by limited interaction (e.g. annual renewals, occasional claims or pension contribution changes) and the data is primarily historical. However, this is a marketplace being reshaped by new regulations and changing customer expectations, all leading to a need for a more forward-looking perspective.

Technology is also creating new benchmarks for customer experience, response and cost, and is making it easier for customers to judge and compare their insurers against competitors and other industries. Insurers can often be hampered by slow and unwieldy legacy systems and traditional ways of working. Many of the new competitive benchmarks are being set by FinTech entrants who are applying digital insight to sharpen customer understanding and utilising cost-efficient digital distribution to undercut incumbent competitors.

The shift in consumer behaviours has been a challenge for many years and is still worrying a quarter of Irish insurance leaders. Being able to engage with tech-savvy customers in real-time, knowing what they want and being able to serve them with the kind of on-demand insurance products they increasingly seek will separate the winners from the losers. In our view, if established insurers don't move quickly enough to meet changing customer expectations, the 'void' will be filled by others. There are lots of smart but currently small FinTech start-ups in Dublin who are agile, have the technology and who may be capable of leapfrogging incumbent insurers.

One in five (19%) of Irish insurance CEOs see geopolitical risks as a brake on growth. This comes at a time when terror attacks are prevalent and touching many parts of the world and are accompanied by anxieties about social instability, the impact of falling interest rates and volatile commodity prices. Irish CEOs, however, may feel that global instability is less of a factor for insurance in Ireland.

Less than one-fifth (16%) of Irish insurance leaders are concerned about cyber threats compared to 79% globally. Insurance businesses hold a considerable amount of sensitive client data. Effective safe guards, including protection from cyber thieves, are essential in sustaining trust in the

Insurance Ireland – PwC Strategic Alliance Partnership

PwC became a Strategic Alliance Partner of Insurance Ireland in December 2015 in the area of Knowledge.

The focus of the Insurance Ireland-PwC Knowledge Strategic Alliance Partnership is on supporting evidence-based advocacy. This entails both drawing on the knowledge of the insurance industry and bringing expert external knowledge to Insurance Ireland's membership base to inform them of key trends in the sector and in the wider economy.

In the rapidly changing environment we are now facing, it is important for Insurance Ireland to adopt constructive, authoritative and well-researched positions on important developments.

This applies both locally and further afield, reflecting the increasingly international nature of industry developments. The partnership with PwC will bring topical thinking and current research on matters of interest to Insurance Ireland, supporting its key advocacy role to ensure the industry's positions are relayed to, and understood by, its key stakeholders.

The work of this partnership is drawing on best practice internationally and encompasses the very latest thinking from across the globe. The Partnership aims to bring forward a series of events on a thematic basis.

Insurance Ireland is very pleased with the partnership to date, the scope of the work in progress and the opportunity it presents for our members and their customers.

A broader talent base

It's important to bring together people with diverse skillsets. This includes people with digital and insurance capabilities. It also includes more people with experience working in government and within client businesses.

The brightest and best candidates will actively seek out organisations with social values that mirror their own, as well as viable, rewarding career paths. It's therefore important to communicate both your purpose and the value this creates for society, and the real and interesting opportunities that you offer employees.

Integrating tax with strategic management

The need to balance tax optimization and compliance in a highly sensitive tax environment will be central to achieving cost-efficiency and sustaining the social licence to operate. This will require tax teams to develop new skills, collaborative processes, and evaluation criteria. A more proactive approach to anticipating changes will be required, developing scenario analysis of the impact and working with your board to build these developments into business strategy.

Coming through stronger

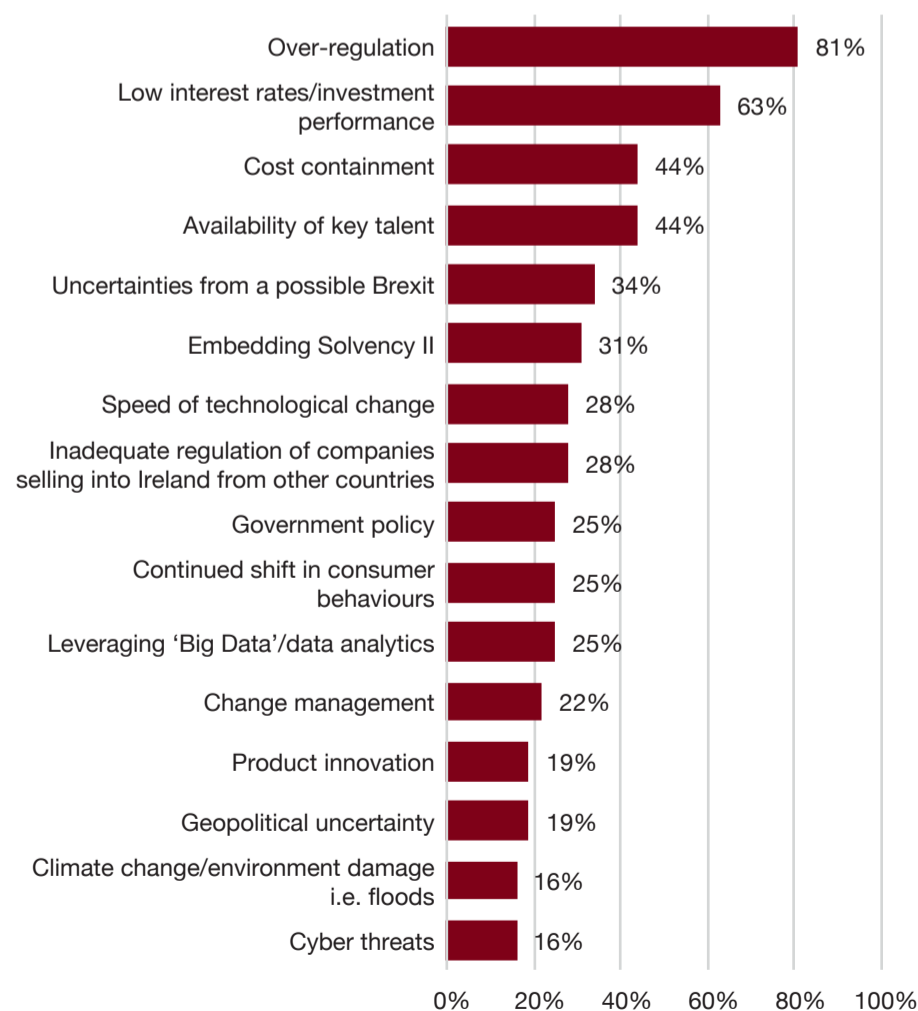
In the face of so many disruptive challenges, it's important not to lose sight of the huge opportunities that are opening up in and around your business. The more uncertain and unstable the environment, the more your risk insight and expertise will be in demand. You're also in pole position to capitalise on the new generation of analytics, sensor connectivity and machine learning technologies that are set to revolutionise our lives. To seize the future, you need to look beyond the traditional boundaries of insurance business to embrace new ways of working, new ways of interacting with customers and whole new possibilities in what your business can deliver.

enterprise. While the cyber insurance industry is one with a lot of potential, it is being held back because of uncertainty as to the nature and quantum of the risks. The lack of data in terms of incidents and the costs of those incidents is making insurance companies a little nervous about widely promoting this segment of business. However, with the growing cyber attacks, the market is there and insurance firms who tap this market first with attractive and profitable pricing will get significant benefit.

Helping organisations to protect against cyber attacks offers huge potential for insurers. PwC estimates that globally annual premiums from cyber insurance could reach US\$7.5 billion by the end of the decade. But cyber risk could also expose insurers to significant losses, both through specific cyber coverage and their technology, errors and omissions and other existing business lines. A UK Government report estimates that the insurance industry's global cyber-risk exposure is already in the order of £100 billion.

Given the high media coverage of the flood damage over recent years, it is interesting that only 16% of Irish insurance leaders feel that climate change including floods will hamper growth. Weather-related shocks are becoming more prevalent and are a challenge for the insurance sector.

Chart 3: Top economic, policy and business threats facing the insurance sector

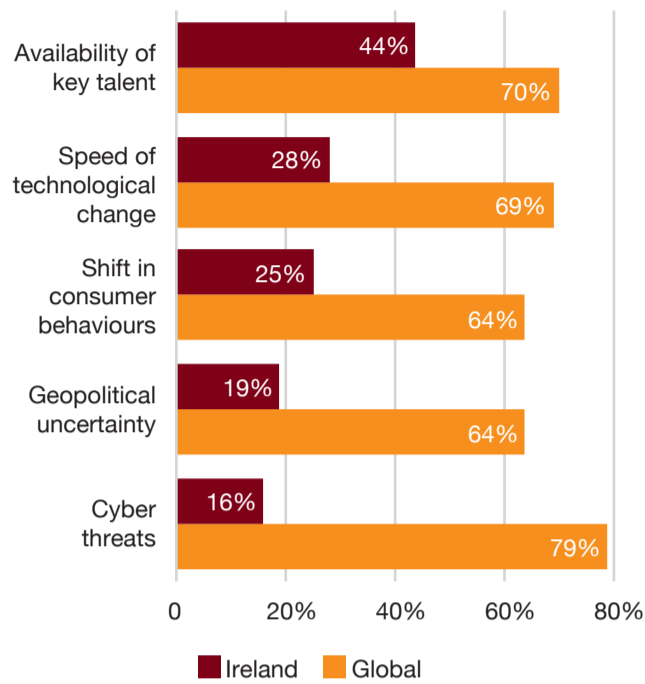


Note: These findings were before the Brexit vote and views in relation to Brexit are likely to evolve as the ultimate relationship between the UK and the European Union becomes clearer.

only 16%
of Irish insurance leaders feel that climate change will hamper growth

Interestingly, there are a number of areas where global insurance leaders are much more concerned than their Irish counterparts:

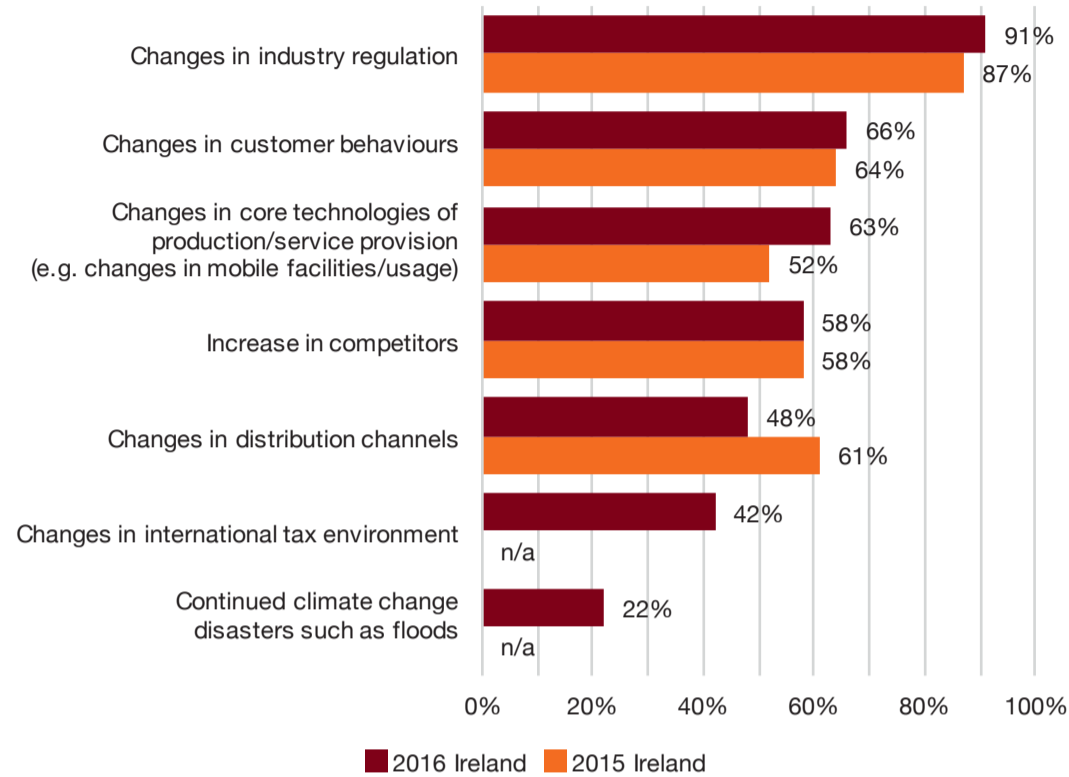
Chart 4: Global companies are much more concerned about:



Disruption will transform insurance industry

The survey highlights a high degree of business disruption within the Irish insurance industry. Leading the charge by a large margin is regulation. Other business disrupters include changes in customer behaviours, changes in core technologies, including the impact of FinTech, and increasing competitors. These levels of disruption will see a transformed insurance industry by the end of the decade. It will be important that insurance business models are able to react and adapt to such continuous change so that they can compete for the same and new customers.

Chart 5: Levels of disruption of key trends to insurance business (% who said 'very disruptive' or 'somewhat disruptive')



5. Moving your business forward

Business insight from PwC

So, based on the above findings, what can your business do to move out in front? Drawing on the survey findings and our work with industry customers, we believe that there are seven key priorities for survival and success in this fast changing market.

A new benchmark for customer-centricity

Customer-centricity is no longer just a matter of doing what's necessary to secure a sale. Customers have ever greater capacity to compare and switch, and regulators are focusing ever more closely on the appropriateness of products and the value they deliver.

To drive true customer engagement and loyalty, it's important to look beyond products, underwriting and rates. An outside-in view, where you examine a need from the customer's point of view and then determine how you can address it, will help ensure both parties achieve the outcomes they want. This could range from deployment of IoT sensors to help reduce equipment damage and breakdowns to using the latest interactive financial planning to help people make more informed retirement investment choices.

Embrace disruption

In light of Brexit and with potential barriers to market entry coming down, your fiercest competitor could as easily be a FinTech company as a traditional peer. It could also be a brand new operating or business model. It's therefore important to think about where your business might be vulnerable and what it can offer that competitors cannot. It's also important to think about how to be innovative, rather than simply following the disruptors. In response, many companies have undertaken joint ventures or entered into strategic outsourcing arrangements that provide them new or complementary capabilities and thereby enhance their competitiveness.

Expand sources of information to understand emerging risks

Ever greater access to data doesn't just increase the speed of servicing and lower costs, it also opens the way for improved decision making typified by ever greater precision, customisation and adaptation.

The insurers out in front are making better use of the information that's already there by rationalising data feeds, improving reliability, and speeding up communications. They're also capturing new types of data and supplementing it with appropriate partner and external data sources.

Partnering with banks, retailers or other groups to gain information on behavior, interests and spending patterns could open the way to the development of more tailored products and features. Further possibilities include combining sensor and social media monitoring with the latest generation of behavioural analysis to create a holistic picture of customer preferences.

Embrace a regulator-centric as well as customer-centric future

Regulation will continue to be costly, complex, and constantly changing. Rather than simply reacting to each new regulatory development, it's important to take a proactive approach to anticipating and analysing regulatory trends and building it into your strategic planning in the same way you would take account of customer sentiment and expectation.

A new approach to cyber risk

Cyber threats present both a business opportunity and critical risk. In the absence of actuarial data, many cyber insurers are forced to rely on blanket policy restrictions to control exposures. This reduces the value of coverage and could impede market growth. The key to market development is a more active partnership between the organisation and its customers, with a more effective and regularly updated threat assessment at its heart. The most competitive insurers will make sure that their own cyber safeguards follow market leading practice, as well as developing the expertise they need to advise customers.

Not all regulation is equal

In considering all of this regulation and its impact on insurance businesses, it is important to remember that not all regulation is equal. Some carries greater penalties and has greater impact. This distinction is key. Companies should be clear what regulation matters now or in the future, and across insurance business at all levels.

Also it is understandable that regulatory focus tends to be on the here and now. However, keeping an eye on what lies ahead, deploying an early warning system and engaging with the regulator throughout your compliance journey, not just at the end, is key. This actively supports a better-prepared, and therefore more resilient organisation.

Too often businesses try to meet regulatory requirements without embracing the people dimension. While this may not create an obvious issue in the short term, everyone has a role to play in controlling the business and companies will not be able to sustain compliance if the right behaviours aren't part of the organisation's DNA.

The key to good reporting often lies in the quality of data. Companies need to know what data matters and what systems and human intervention and impact data has on its journey to your reports. It's important to shift the emphasis from the report itself as an

output, to the process and controls used to generate it.

Stakeholder trust is key

Greater consumer power has come with the rise of social media, making it harder for organisations to maintain their reputations and customer trust. Those that regulation seeks to protect now have a greater voice for their concerns and this is driving new regulation as a means of providing additional protection. Proactively communicating regulatory performance – good or bad – so stakeholders can enhance your reputation and build trust.

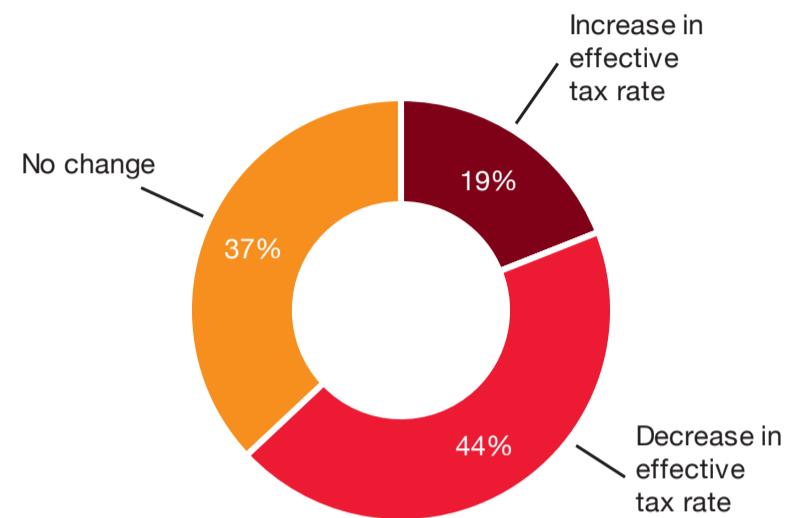
Tax and insurance

The survey reveals that over 80% of Irish insurance leaders expect their effective tax rate to either stay steady or fall in a changing global corporate tax environment. This result suggests a very high degree of confidence of insurance leaders in the sustainability of Ireland's corporate tax regime and the 12.5% corporate tax rate.

While international tax initiatives such as BEPS and the EU Anti-Tax avoidance Directive will have an impact on certain sectors, the insurance sector does not see additional tax costs arising from these initiatives. In addition, these initiatives will be a driver for international insurance and

reinsurance groups to review their operating models and the location of key activities. A competitive tax regime and the availability of a substantial pool of English speaking highly-skilled professionals mean that Ireland is ideally positioned to benefit from this trend. Many groups will be encouraged to expand further the high value activities they have located in Ireland.

Chart 19: How will the changing global corporate tax environment impact your business?



2. Technology and Innovation

Innovation capacity is seen as the greatest benefit delivered by digital technologies. We believe that the driving force behind innovation is emerging from technological advances outside the insurance sector that bring new opportunities e.g. telematics, wearables, connected homes, industrial sensors, medical advances, etc. Customer demand is the key driver accelerating innovation whereas regulation and data protection concerns are the main barriers. Other areas where digital technologies are delivering value are in the areas of operational efficiency, cybersecurity and customer experience. Interestingly, digital technologies are seen as delivering less value in the areas of talent retention and strategic decision making and there may be more work to be done in these areas.

Chart 6: To what extent are digital technologies creating value for your insurance business in the following areas? (% who said 'quite high' and 'very high' value)

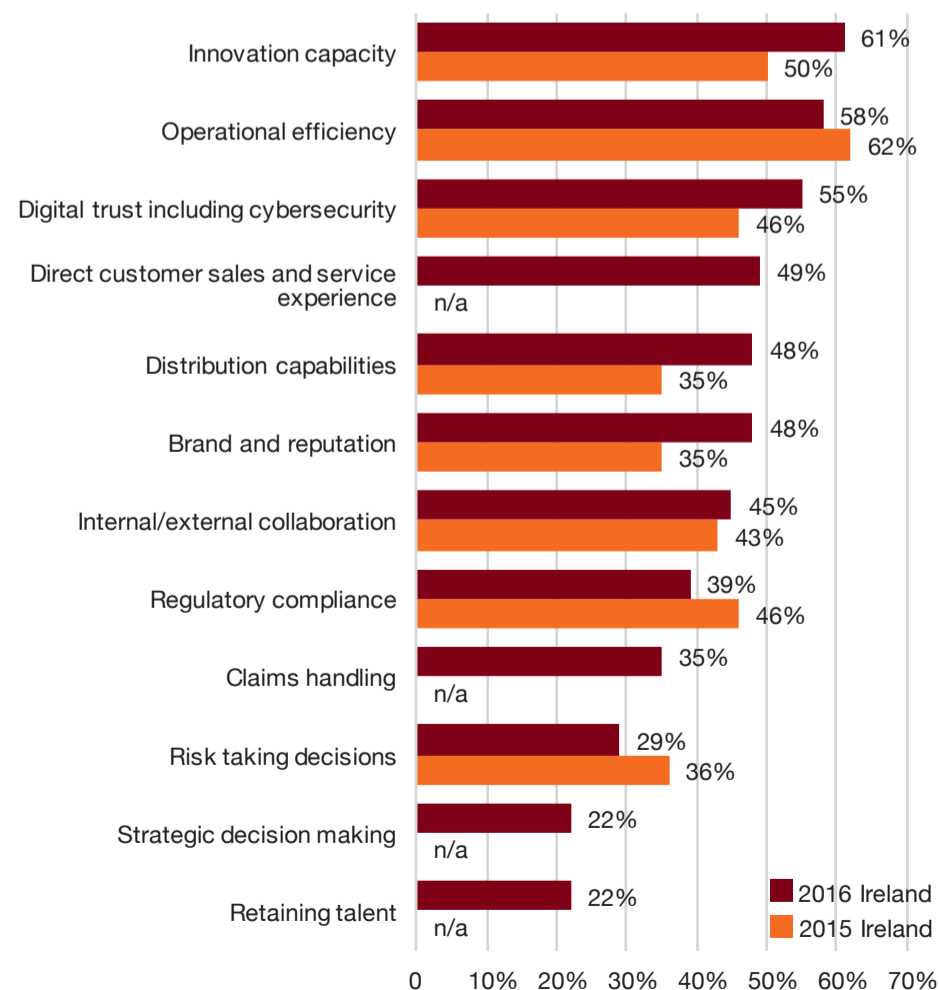


Chart 7: What is accelerating innovation in your business?

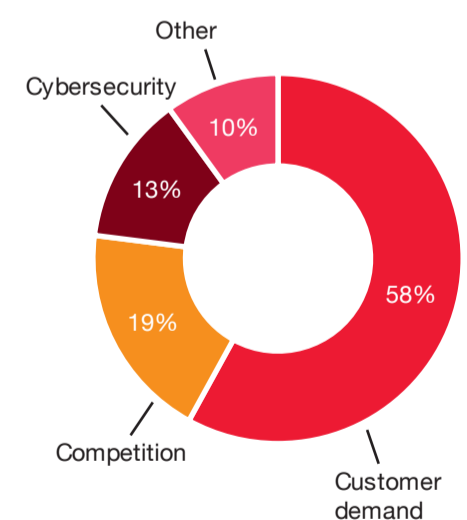
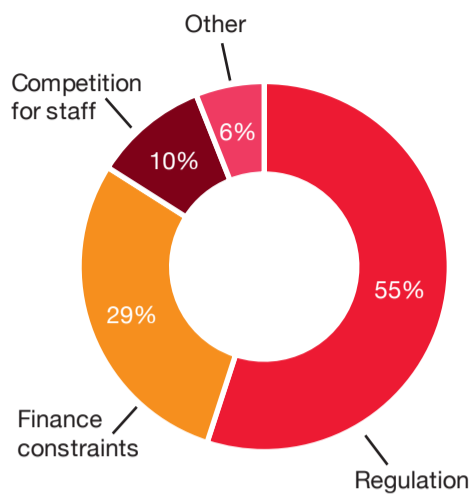


Chart 8: What is decelerating innovation in your business?



Advanced analytics

According to the survey, the centralised analytics team, actuarial, and the underwriting functions are the highest users of advanced analytics. Other business functions which are high users include claims and fraud management, information technology and risk management. Just over a third (36%) of the senior management team use advanced analytics.

Telematic sensors, data analytics and other sources of digital insight and connectivity are paving the way for real-time risk evaluation and pricing and continuous customer

engagement. The new generation of analytics can not only enable the business to anticipate what will happen (predictive analytics), but also shape outcomes such as reduced accident rates or improved health and well-being (prescriptive analytics). This more proactive and preventative approach marks a change in purpose for insurers, which will deliver considerable social as well as financial value.

In turn, artificial intelligence and robo-advisors can significantly cut costs by automating routine transactions and research, which can not only reduce fees, but also allow agents and brokers to spend more time developing customised solutions and focusing on more complex and higher value accounts.

Even bigger changes lie ahead as technology creates new sources of collaboration and revenue. For example, data from car and equipment sensors can be shared with manufacturers and repairers, paving the way for new joint ventures in design and maintenance. It's possible that revenue models could increasingly gravitate from premiums to premiums plus subscriptions. Some insurers may reinvent themselves altogether – from protecting against risk to managing and monetising information, for example.

Chart 9: Business functions which are high users of advanced analytics

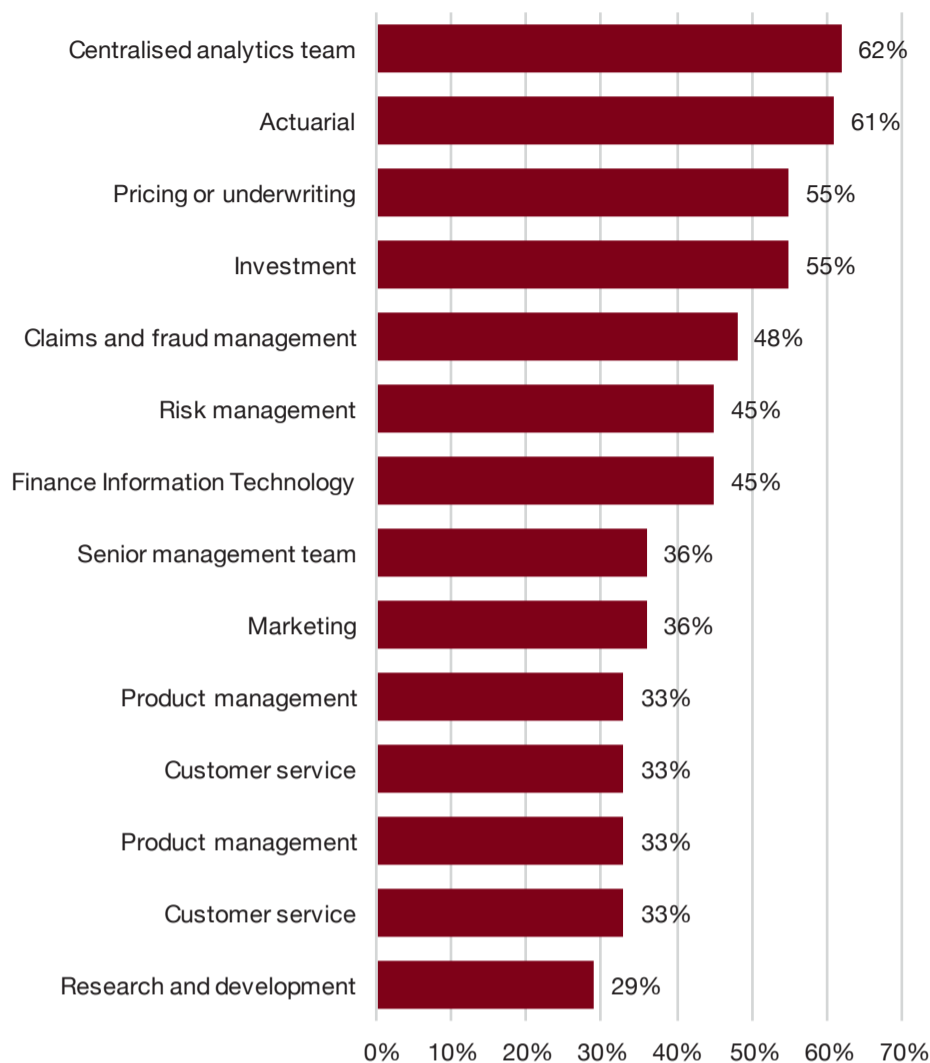


Chart 17: What elements of your business have or will likely undergo change as a direct result of Solvency II?

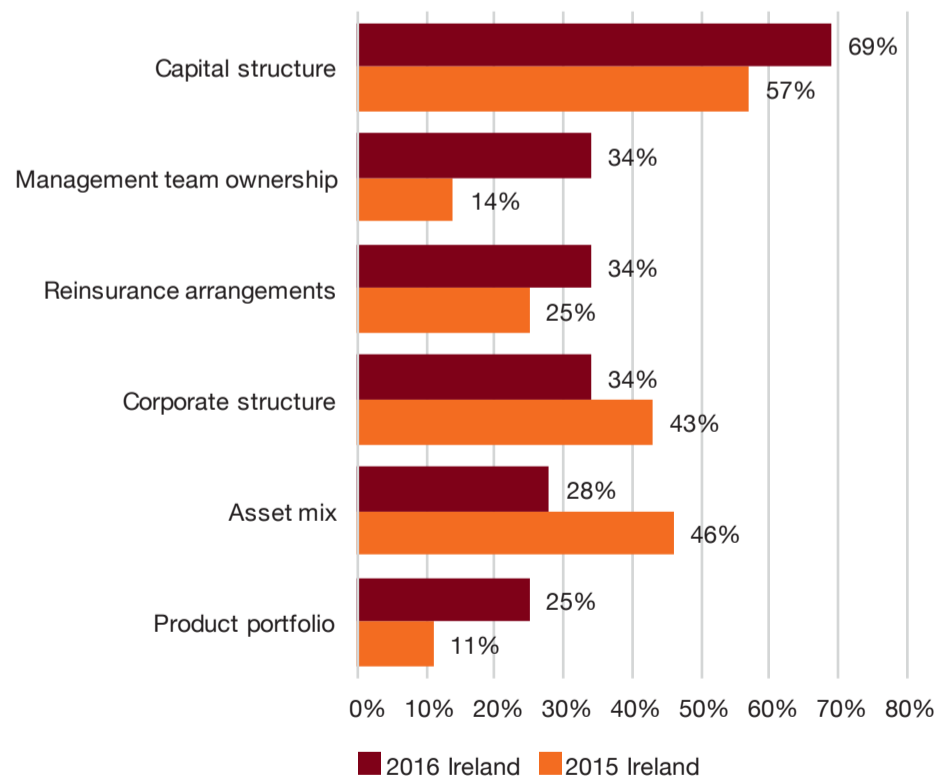
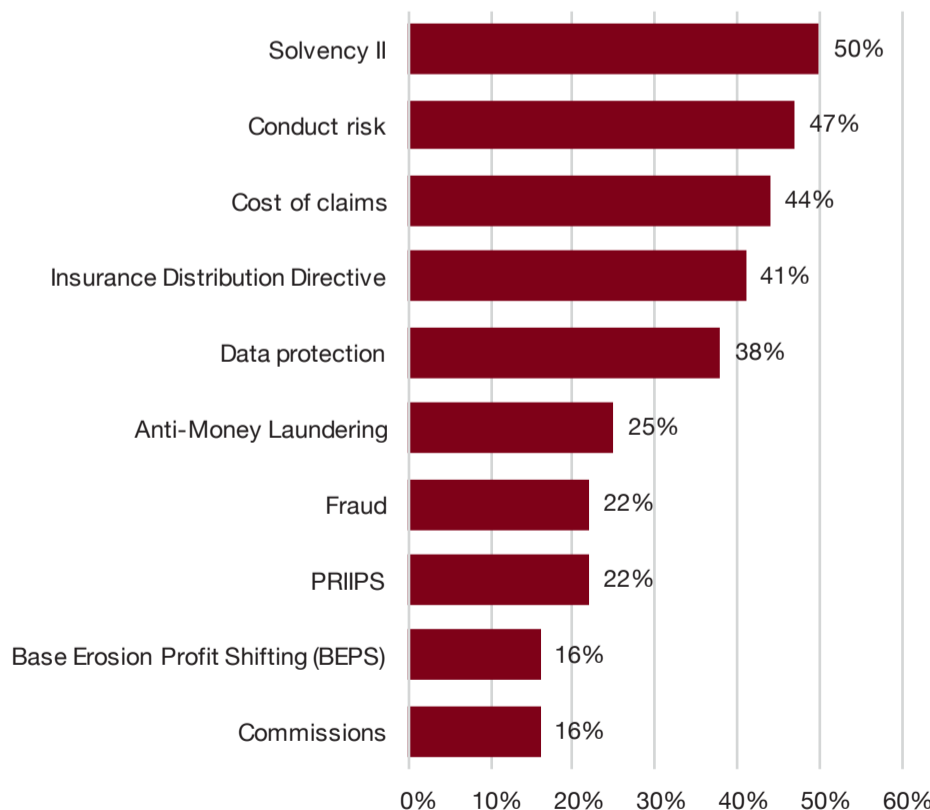


Chart 18: What specific regulations, actual or pending, will present the biggest challenges to your business?



4. Regulation and tax

While down on last year, half of insurance leaders still scored Ireland as more demanding as an international insurance centre when compared to other EU territories. The UK was seen as having the most competitive international regulatory regime relative to Ireland. The outcome of the UK negotiations on its future relationship with the EU will have a big impact on the UK's future position as an international financial services centre.

Chart 14: As an international insurance centre, how is the Irish regulatory regime viewed compared to other EU territories?

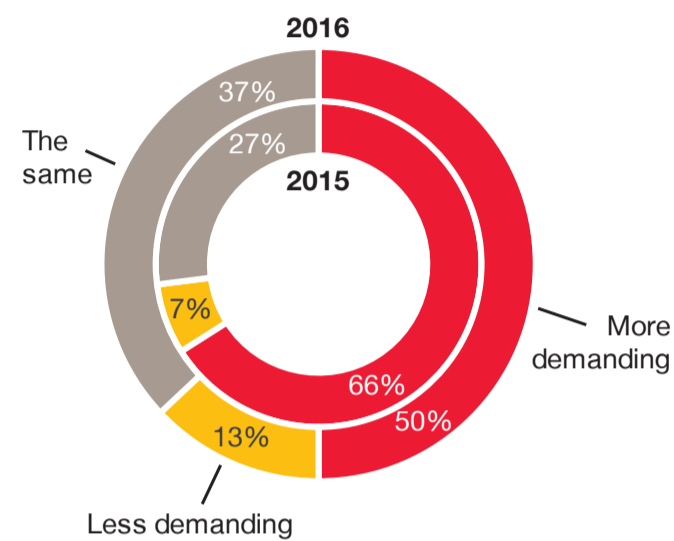
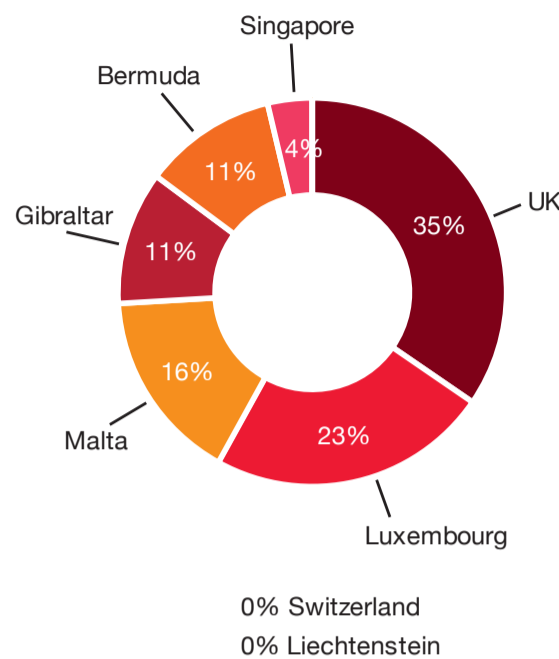


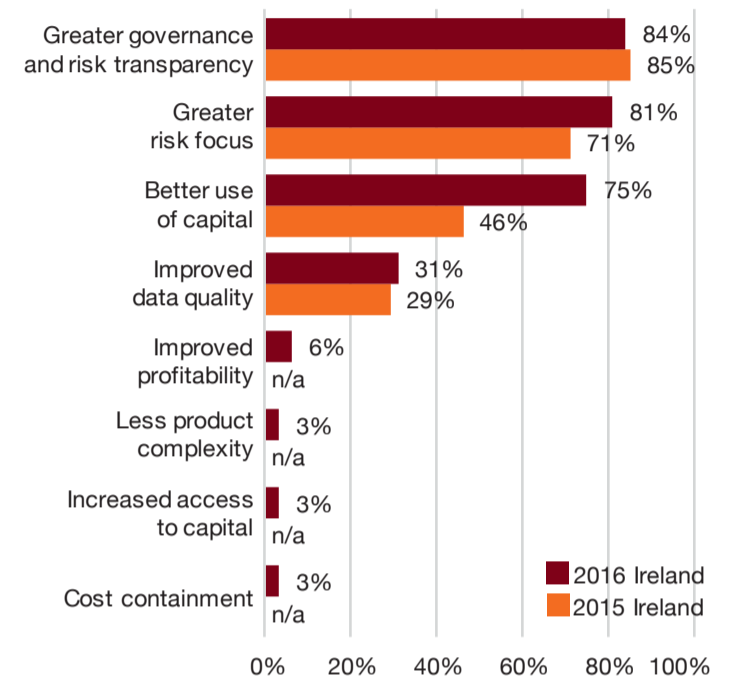
Chart 15: What is the most competitive International regulatory regime relative to Ireland?



There is no doubt that Solvency II has brought benefits to the insurance market. Overall, the understanding of the industry and its resilience has improved, although challenges do remain. Benefits highlighted by the survey include greater governance and risk focus, better use of capital, improved data quality and profitability. A key challenge for regulators no doubt will be the challenge presented by the raft of information they receive.

The survey highlights that Solvency II is bringing about change. Capital structure is by far the greatest area for change, followed by corporate structure, reinsurance arrangements and changes in the management team ownership. Aside from Solvency II, there is a raft of other regulations impacting Irish insurance businesses. These include areas such as conduct risk, cost of claims, the Insurance Distribution Directive as well as data protection.

Chart 16: What are the top benefits to your business from Solvency II?



3. Future trends, priorities

According to the PwC/II survey, key trends having the most significant impact on the insurance industry in Ireland over the next five years are regulatory constraints, capital management challenges and volatile economic conditions (Chart 10, page 10). Other important trends include the increasing power of the consumer, cyber attacks, the increasing role of advanced technology and predictive modelling as well as competition from FinTech enterprises.

The rise of FinTech – a driving force for change

PwC's recent Irish FinTech report revealed some key differences between Irish and global insurance companies where FinTech is concerned. For example, Irish insurance companies rated self-directed services and usage-based insurance as more important than global companies and were more likely to respond to these trends. Self-directed services allow companies to improve their operational efficiency while enabling online/mobile channels demanded by emerging segments such as millennials. An example of this is preliminary motor insurance quotes obtained by sending a picture of the driver's licence and car registration number. Usage-based insurance, on the other hand, is an emerging trend in finding new underwriting

approaches. Auto insurance pay-as-you-drive leveraging telematics is now the most popular usage-based insurance.

The same survey highlighted that global companies were more likely to embrace data analytics. Deep risk insights can be generated from new data sources that can be accessed remotely and in real-time. However, the ability to capture huge amounts of data must be coupled with the ability to analyse it to generate the required insights. This trend also includes the Internet-of-Things (IoT) where IoT platforms include various types of sensors, such as telematics, wearables, connected homes, etc.

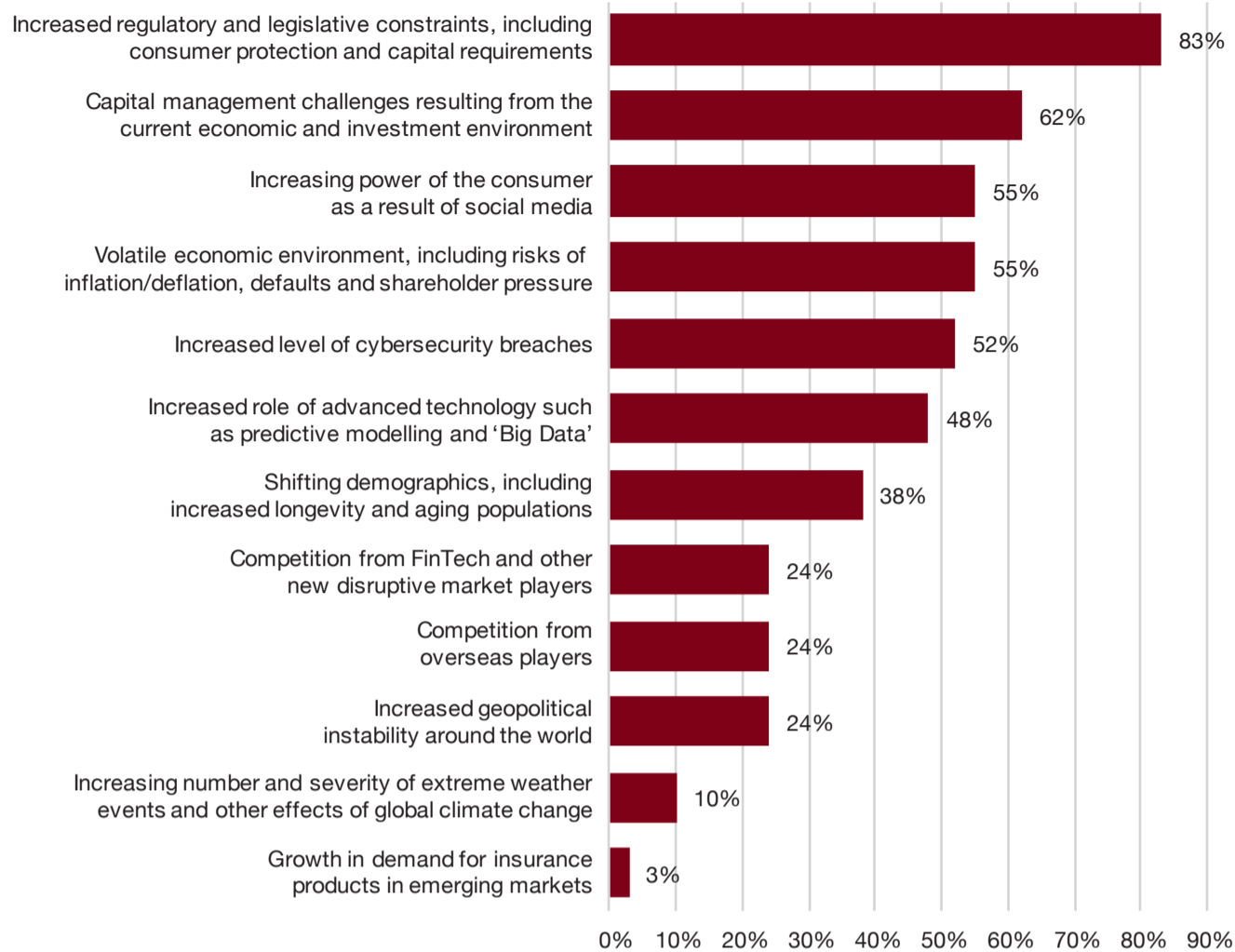
On the other hand, Irish insurance companies did not rate robotics or blockchain as important and were unlikely to respond to these new technologies. The PwC research shows that the majority of Irish financial services organisations are only at best moderately familiar with blockchain. In our view, blockchain technology may result in a radically different competitive future in financial services, where current profit pools are disrupted and redistributed to the owners of new, highly efficient blockchain platforms. It is an area to watch with high potential and we are seeing frenetic innovation from start-ups in this space.

Other recent research conducted amongst global wholesale insurance leaders revealed that blockchain holds huge potential for wholesale insurance. It highlighted that the wholesale insurance market is enthusiastic about implementing blockchain solutions. As well as cost reduction and improved efficiency, blockchain could be a transformative technology changing the way the industry operates, enabling revenue growth in the sector as higher-quality service leads to new business.

PwC estimates that blockchain solutions could remove 15-20% of expenses from the reinsurance industry, delivering \$5-10bn savings.

Blockchain - a transformative technology for insurance

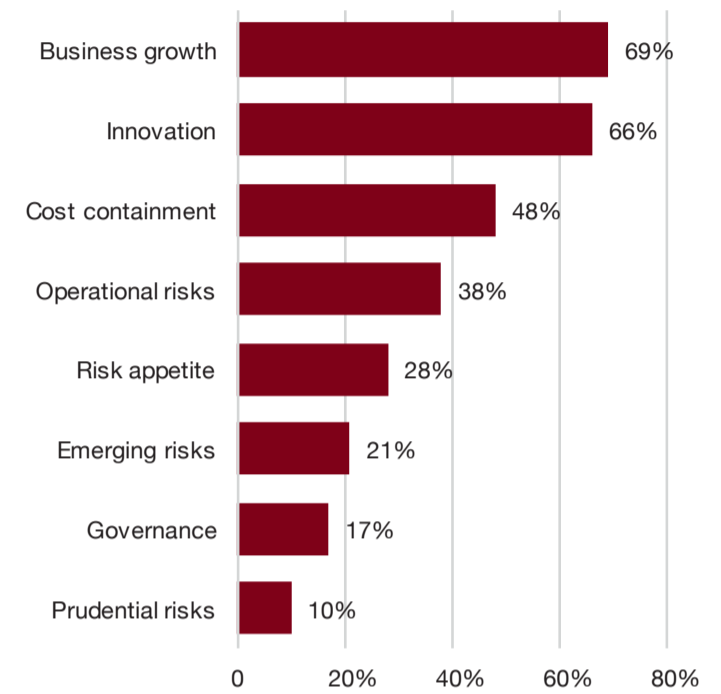
Chart 10: Key trends having the most significant impact on Irish insurance business in the next two to five years



Business growth is the key area of focus

While the industry is aware of current business and economic challenges, insurance leaders in Ireland do see opportunities and this may be in light of a robust economy that is performing well ahead of its European counterparts in terms of GDP growth along with growing employment. This survey highlights that significant areas of focus in the year ahead for Irish insurance businesses are business growth, innovation and cost control. These will be key areas to tackle to ensure that Irish insurance businesses remain relevant and can compete at the highest level to remain fit for the future.

Chart 11: Areas of significant attention in the year ahead, when compared to the past year for insurance businesses



According to the survey, maintaining competitiveness is the top priority for Government, by a significant margin. Other important priorities are ensuring availability of key skills, incentivising for personal retirement provision and reducing the personal tax burden.

Chart 12: Key Government priorities for the insurance sector to achieve its growth plans

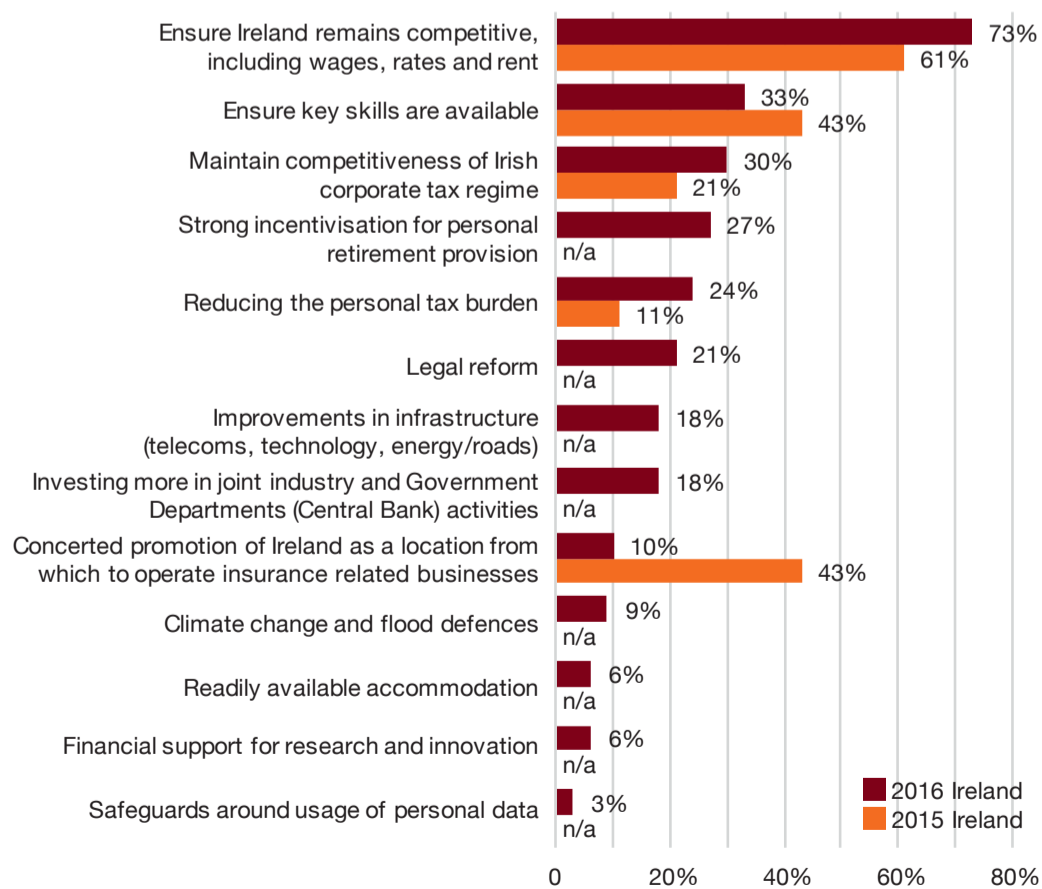


Chart 13: Which Insurance Ireland strategic pillar is the single key priority for the insurance sector to achieve its growth plans?

