

Case studies on best practice licensing frameworks

A REPORT PREPARED FOR THE ECONOMIC REGULATION AUTHORITY OF WESTERN AUSTRALIA

July 2018

Case studies on best practice licensing frameworks

1	Victoria landfills	1
2	Australia non-profit organisations	6
3	New Zealand food	11
4	New Zealand air transport	17
5	UK finance	21
6	British Columbia reform initiative	26
7	British Columbia seafood	33
8	Hong Kong "Be the Smart Regulator Programme"	38
9	UK childcare and security	45
10	Poland deregulation of occupational licensing	51

1 Victoria landfills

1.1 Summary of licensing scheme

Item	Description	
Name of licence	Landfill licence	
Jurisdiction	Victoria, Australia	
Overview	In 2010, the Environment Protection Authority reformed licensing requirements for landfills to better achieve environmental outcomes. Under the new scheme, all landfills (new and existing) are classified as either high or low-risk. High-risk landfills are subject to more onerous requirements for environmental monitoring and auditing of landfill operations, such as more frequent audits. New landfills are also subject to additional requirements relating to design endorsement by the Environment Protection Authority, and construction certification by an environmental auditor. However, these requirements may be waived by the Environment Protection Authority if the landfill is classified as low risk.	
Regulatory body	Environment Protection Authority (EPA)	
Best practice features	The new licensing scheme incorporates a risk-based assessment to determine licence conditions, to optimise the benefits of licensing against the associated regulatory and compliance costs.	
Evidence of benefits due to licensing scheme	A report prepared by the Victoria Auditor-General in September 2014 found that regulation and oversight of landfill performance, particularly at new landfills, has significantly improved after the introduction of the new risk-based licensing scheme, effectively addressing the major risks posed by contaminated water and gas emissions.	
	However, the report also noted some shortcomings, including that older sites have not been managed as effectively. This is principally due to a fragmented and slow approach to addressing landfill legacy risk issues at older sites, and unclear guidance in implementing the risk-based approach for such sites.	

1.2 Purpose of licensing scheme

The licensing scheme is designed to manage the risks that landfills pose to the environment, human health and amenity, based on their siting, construction, management, and rehabilitation. The scheme applies to both active landfills (those

that currently accept waste) and closed landfills (those that received waste in the past but no longer do).

1.3 Development of licensing scheme

In 2008, residents in Brookland Greens Estate who lived nearby a closed landfill were found to be exposed to unacceptable levels of potentially explosive gases generated from the landfill site. These residents were later successful in obtaining a multimillion dollar class action settlement against the City of Casey Council and the Environment Protection Authority.

Subsequent internal and external reviews (e.g. a 2009 Ombudsman's inquiry into the Brookland Greens case, and 2010 Auditor-General report on hazardous waste management) revealed that the Environment Protection Authority's regulation and oversight of landfills were inadequate, reflecting organisation-wide flaws in its regulatory approach.

The Environment Protection Authority commenced a significant reform process in 2010, which led to a range of regulatory reforms to its overall management and oversight of pollution. This included the introduction of a risk-based regulatory model, with stronger focus on compliance activities, and closer scrutiny on the highest risk sites and activities.

1.4 Operation of licensing scheme

The Environment Protection Authority classifies all landfills as either 'high-risk' or 'low-risk.' Landfills classified as low-risk are subject to less stringent licensing conditions than landfills classified as high-risk.

The criteria for low-risk landfills, which must be certified by an environmental risk assessment, are as follows:

- they receive less than 20,000 tonnes of waste per annum
- the landfill is located remotely from sensitive receptors, such as 500m from residences and 100m from waterways etc
- wastes are deposited two metres above the long term undisturbed groundwater level
- the landfill is not located in areas of groundwater with less than 1,000mg/L of total dissolved solids
- a financial assurance is in place

There are three components of the licensing scheme, which are summarised below. The first component applies to all landfills (i.e. existing and new, high and low risk) though the specific requirements may vary depending on the risk classification of the landfill. The second and third components only apply to new landfills, and may

be waived by the Environment Protection Authority if the landfill is classified as low risk:

- Environmental monitoring and auditing of landfill operations this component requires landfill operators to: (a) undertake an environmental risk assessment of landfill operations to identify and evaluate the potential risks of the operations to the environment; (b) prepare and implement an environment monitoring program based on the risk assessment; and (c) undertake an ongoing environment audit program to assess the impact of landfill activities on the environment, and then prepare an action plan for implementation of audit report recommendations. The specific requirements may vary depending on whether the landfill has been classified as high or low risk for instance, the audit frequency for high-risk landfills may be once every one or two years, while for low-risk rural landfills may be once every three to five years.
- Approval of landfill design by the Environment Protection Authority a licence holder must obtain written approval from the Environment Protection Authority to construct a new landfill cell. The design approval process includes engagement of an environmental auditor to assess the plans, technical specifications and construction quality assurance plan (design documents) for the new cell. The Environment Protection Authority will not provide approval if the licence-holder has failed to progressively rehabilitate existing landfills. Compliance and environmental performance history will also be an important consideration. The requirement for design endorsement may be waived by the Environmental Protection Authority for proposed landfills that are classified as low risk.
- Independent audit of landfill construction this component requires involvement of an environmental auditor to audit and verify that cell construction is consistent with the approved design. As will the second component, the Environmental Protection Authority may waive the requirement for construction certification for proposed landfills that are classified as low risk,

1.5 Best practice features

Use of a risk-based licensing framework to optimise conditions

A well-designed licensing scheme requires that licence conditions be proportionate to the risks being addressed. All regulation imposes costs, and these costs need to be weighed against the benefits to identify whether regulation will lead to more efficient outcomes. To identify whether benefits outweigh costs, it is necessary to consider whether licensing obligations (which affect regulatory and compliance costs) is comparable to the risk (as relates to both size and the probability of occurrence) of market failure. Furthermore, licensing differs from other forms of regulation by imposing restrictions on businesses prior to commencement, which is particularly useful when externalities are difficult to measure or address post-commencement.

In the present case, the source and level of risk posed by landfills change with the age of the landfill, the phases of the landfill lifecycle, its siting and construction standards, the type of waste accepted and the management controls in place. In addition, environmental externalities resulting from mismanaged landfills may be difficult to attribute and correct post-construction – licensing to impose conditions on landfills pre-construction is preferred over other types of regulation.

As such, the Environment Protection Authority introduced a risk based approach to licensing landfills. Environmental monitoring and auditing of landfill operations are tailored to each landfill based on an environmental risk assessment. In addition, for new landfills, requirements relating to design endorsement by the Environment Protection Authority, and construction certification by an environmental auditor, may be waived by the Authority for landfills classified as low risk. These factors balance compliance cost against risk, as lower risk landfills are likely to be subject to less onerous requirements than higher risk landfills.

The risk-based assessment is designed to ensure that regulation is targeted towards higher-risk activities. Optimisation of requirements in this way will better ensure that the benefits of licensing are not outweighed by the associated regulatory and compliance costs.

1.6 Evidence of benefits due to licensing scheme

A report prepared by the Victoria Auditor-General in September 2014 found that regulation and oversight of landfill performance has significantly improved after the introduction of the new risk-based licensing scheme, effectively addressing the major risks posed by contaminated water and gas emissions. This is particularly the case for new landfills constructed since 2010.

The report reviewed the efforts of four councils in complying with the framework. It found the councils had met the Environment Protection Authority guidelines for landfill design and construction, as well as the risk assessment, monitoring and auditing requirements that Authority had set for higher-risk sites. For example, in 2012, the Ballarat council received three remedial notices from the Authority, and embarked on a major program of works designed to better monitor and manage gas risks. The work is now complete, but the benefit in reducing gas risks was not yet apparent at the time of publication for the Victoria Auditor-General report.

However, the report also noted that some localised risks, particularly at older sites, had not been managed effectively, including risks relating to contaminated water, gas, odour and asbestos. This was due to the complexity and costs associated with addressing these issues, unclear guidance from the Authority which meant that the level and rigour of risk assessment varied significantly between local councils, and a lack of clarity about roles and responsibilities associated with closed landfills. The report set out several recommendations to address these issues, primarily through improving guidance to landfill owners, which are currently being implemented.

Sources:

- Victorian Auditor-General. Managing Landfills. (Sep 2014). Available at: https://www.audit.vic.gov.au/sites/default/files/20140903-Landfills.pdf
- Environment Protection Authority Victoria. Landfill licensing. (Sep 2016). Available at: http://www.epa.vic.gov.au/~/media/Publications/1323%203.pdf
- Environment Protection Authority Victoria. Final Landfill Licence Conditions. (Oct 2016). Available at: http://www.epa.vic.gov.au/our-work/programs%20and%20initiatives/Landfills%20improvement%20program/Final-Landfill-Conditions-EPA-07102016-PDF.pdf
- Environment Protection Authority Victoria. Changes in landfill licences FAQ. (Oct 2016). Available at: <a href="http://www.epa.vic.gov.au/our-work/programs/~/media/Files/Our%20work/Programs%20and%20initiatives/Landfills%20improvement%20program/Changes-in-landfill-licences_FAQ_October2016_FINAL.pdf
- 5. Environment Protection Authority Victoria. Changes in landfill licences FAQ#2. (May 2017). Available at: http://www.epa.vic.gov.au/our-work/programs%20and%20initiatives/Landfills%20improvement%20programs/~/media/Files/Our%20work/Programs%20and%20initiatives/Landfills%20improvement%20program/Changes-in-landfill-licences_APS_FAQ_MAY2017_FINAL-v1.pdf

2 Australia non-profit organisations

2.1 Summary of licensing scheme

Item	Description		
Name of licence	Registration with the Australia Charities and Not-for-profits Commission		
Jurisdiction	Australia		
	The Australian Charities and Not-for-profits Commission Act 2012 formally established the Australia Charities and Not-for-profits Commission. The Act requires the Commission to:		
	 establish and maintain a register for charities, 		
	 introduce and administer a national regulatory framework for charities, and 		
	 promote the reduction of unnecessary regulatory obligations. 		
Overview	Industry feedback via a Commission-organised forum, as well as the findings of an independent report prepared for the Commission on the regulatory burden on charities, indicated that there were significant concerns with regards to red tape. In particular, separate reporting requirements in different Australian jurisdictions divert scarce resources from delivering charities' core functions. Particularly for online fundraising, even modest campaigns can have an international reach, involving multiple reporting requirements.		
	There have since been ongoing efforts to harmonise reporting requirements between different state and Commonwealth agencies.		
Regulatory body	Australian Charities and Not-for-profits Commission		
Best practice features	The scheme has resulted in significant rationalisation of reporting requirements between agencies. Particularly for online fundraising campaigns that span various jurisdictions, the standardisation of reporting requirements has helped reduce regulatory burden. While this does not directly impact on licensing requirements imposed by the Australia Charities and Not-for-profits Commission, they reduce duplicative reporting requirements with other agencies, reducing overall regulatory burden for charities and not-for-profits.		
Evidence of benefits due to licensing scheme	Annual reports by the Australian Charities and Not-for-profits Commission shows increasing acceptance of the Charity Passport by State and Federal government agencies, which has resulted in charities receiving fewer information requests, and incurring commensurately lower compliance costs. The Commission estimates that duplicative reporting requirements imposed on charities have been reduced by approximately 50% due to the use		

Item	Description	
	of the Charity Passport, and other data-sharing arrangements such as Memorandums of Understanding with Commonwealth agencies.	

2.2 Purpose of licensing scheme

The Australian Charities and Not-for-profits Commission Act 2012 formally established the Australia Charities and Not-for-profits Commission. The Act required that the Commission:

- o establish and maintain a register for charities;
- o introduce and administer a national regulatory framework for charities; and
- opromote the reduction of unnecessary regulatory obligations.

2.3 Development of licensing scheme

Before the licensing scheme was introduced, incorporated non-profit organisations were subject to disparate regulatory regimes at both the Federal and state/territory levels. Unincorporated organisations largely fell outside of these regimes and were mostly unregulated.

The Australia Charities and Not-for-profits Commission was established in 2012. Following this, in 2013, a forum organised by the Commission titled *Measuring and Reducing Red Tape in the Not-for-Profit Sector* drew a significant audience from the government and the non-profit and charities sector. Forum participants expressed strong support for red tape reduction.

In 2014, Ernst & Young published a report for the Commission quantifying the regulatory and reporting burdens on the charity sector. Ernst & Young estimated that between \$27,000 and \$38,000 of unnecessary red tape costs were imposed annually on an average case study charity.

The report highlighted the need for charities to have harmonisation of information provided to state governments and the Commission for fundraising approvals and charity registration respectively. This is particularly pertinent for charities since the increasing prevalence of online campaigns meant that even modest campaigns had a country-wide or even international reach, and was therefore subject to a number of different regulatory regimes. Due to the increasing use of online fundraising, the regulatory burden associated with reporting requirements was increasingly disproportionate to the size and scope of charity organisations.

The report also raised charities' concerns with facing inconsistent financial reporting requirements.

2.4 Operation of licensing scheme

The Australian Charities and Not-for-profits Commission has been streamlining regulatory and reporting obligations for charities to facilitate the harmonisation of these obligations between jurisdictions.

Notably, a Charity Passport data reporting tool was introduced, which is currently accepted by South Australia, Tasmania, and the ACT. The Charity Passport enables authorised government agencies to access charity data from the Commission in a standardised, commonly accepted format to reduce red tape for charities.

Furthermore, Memorandums of Understanding on data sharing have been agreed with Commonwealth agencies, including the Australian Tax Office, the Australian Business Register, the Australian Securities and Investments Commission, and the Office of the Registrar of Indigenous Corporations.

The above initiatives reduce duplicative reporting requirements with other agencies and thereby reduce the overall regulatory burden for charities and not-for-profits.

2.5 Best practice features

Rationalisation of reporting requirements between agencies

Licensing regimes tend to require collection of information from licensees, which imposes costs on the licensees. Minimising such costs requires regulators to evaluate whether the information is necessary, and whether there are more cost-efficient ways to collect such information. In particular, a single entity may have various separate reporting requirements to separate regulatory agencies. In such cases, it may be more cost efficient for the separate agencies to cooperate and share data en masse. This would free licensees of duplicative reporting requirements, while imposing relatively low additional costs on regulators.

Not-for-profit organisations in Australia are required to register with the Australian Charities and Not-for-profits Commission, Australian Tax Office, Australian Business Register and Australian Securities and Investments Commission, in addition to state regulators where fundraising occurs. As such, the introduction of commonly accepted data reporting, as well as data sharing agreements between the Australia Charities and Not-for-profits Commission and other agencies (at both the federal and state level) is particularly beneficial.

In particular, the development of a Charity Passport allows authorised government agencies to access charity data held by the Commission directly from the Charity Passport database, rather than requesting the information from each individual charity organisation. The information is presented in a standardised and accepted format, and is updated on a weekly basis to ensure that government agencies have access to data that is up-to-date. In addition, a secure file transfer protocol (FTP) is used to ensure security of information.

Successful implementation of the Charity Passport and data sharing arrangements requires agreement from participating agencies. At the federal level, this has been facilitated by revising the *Commonwealth Grant Guidelines* to prevent Commonwealth agency staff requesting information from registered charities already provided to the Australian Charities and Not-for-profits Commission. At the state level, the Charity Passport is used in South Australia, Tasmania and the Australian Capital Territory, facilitated by new state legislation being passed in the past few years. Prior to that, inter-agency working groups chaired by the Commission, such as the State Revenue Officer Working Group and the Fundraising Regulation Reform Working Group, were set up to facilitate policy coordination amongst the states.

Going forward, the Commission continues to promote the Charity passport with state, territory and Commonwealth regulators. At present, it is actively working with Consumer Affairs Victoria to streamline reporting requirements by exempting incorporated non-profit organisations in Victoria from being required to report to Consumer Affairs Victoria.

By proactively reaching out to other agencies, the Commission's initiatives reduce duplicative reporting for charities, allowing scarce resources to be diverted to the core aim of helping vulnerable communities.

2.6 Evidence of benefits due to licensing scheme

Annual reports by the Australian Charities and Not-for-profits Commission show progress towards its objective of reducing unnecessary regulatory obligations.

This includes increasing acceptance of the Charity Passport by State and Federal government agencies. As of 30 June 2017, there were 20 government agencies (at state, territory and federal level) using the Charity Passport, which has resulted in charities receiving fewer information requests, and incurring commensurately lower compliance costs. The Australian Charities and Not-for-profits Commission estimates that duplicative reporting requirements imposed on charities have been reduced by approximately 50% due to the use of the Charity Passport, as well as other data-sharing arrangements such as Memorandums of Understanding with Commonwealth agencies.

Sources:

- EY. Research into Commonwealth Regulatory and Reporting Burdens on the Charity Sector. (Sep 2014). Available at: https://www.acnc.gov.au/CMDownload.aspx?ContentKey=6a0ca0f1-af2e-4daa-aa8c-b92810c59b8b&ContentItemKey=2b8b2464-5f17-46c8-b0d6-307c7a62db7c
- Deloitte. Cutting Red Tape: Options to align state, territory and Commonwealth charity regulation. (Feb 2016). Available at:

- $\underline{https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-economics-cutting-red-tape-align-charity-regulation-230216.pdf$
- Australian Charities and Not-for-profits Commission. ACNC annual reports. Available at: http://www.acnc.gov.au/ACNC/About_ACNC/Corporate_info/Annual_Reports/ACNC/Publications/ARI_anding.aspx
- 4. Australian Institute of Criminology. Regulation of the non-profit sector. Available at: https://aic.gov.au/publications/rpp/rpp114/regulation-non-profit-sector
- Australian Government. Commonwealth Grant Guidelines, para 4.7. (June 2013). Available at: https://www.legislation.gov.au/Details/F2013L00433

3 New Zealand food

3.1 Summary of licensing scheme

Item	Description
Name of licence	Registration of businesses under the Food Act 2014
Jurisdiction	New Zealand
Overview	The purpose of the licensing scheme is to reduce the prevalence of foodborne illnesses in New Zealand. This is achieved by imposing certain registration and reporting obligations on food businesses operating in New Zealand.
	The scheme applies to all businesses that sell or trade food on a commercial basis, and covers the entire value chain from production to retail. It does not apply to growing or preparing food for personal use, or sharing food with others (such as part of a social gathering), and does not cover the trading of seeds for planting.
Regulatory body	Ministry for Primary Industries, and local councils
Best practice features	The licensing scheme adopts a risk-based approach to licensing food businesses. The registration and reporting obligations placed on a business differ based on an assessment of the risk imposed by the business to food safety. Businesses that are higher risk, from a food safety perspective, are subject to more stringent registration and reporting requirements than lower-risk businesses. This sliding scale ensures that conduct rules and regulatory burden are commensurate with the risks imposed.
Evidence of benefits due to licensing scheme	Transition to the new licensing scheme is ongoing, and a formal review of the scheme has not yet taken place. The New Zealand government has not indicated when a review will occur.

3.2 Purpose of licensing scheme

In general, the purpose of requiring businesses to register under the *Food Act 2014* is to ensure food safety in all related industries and at all stages of the value chain. In this case, food safety refers to the prevention of foodborne illness.

Rather than adopting a one-size-fits-all approach, the key tenement of the licensing scheme is that the level of regulation applied to businesses will vary according to the level of food safety risk that their food presents to the public. Businesses that

are at a higher risk of being the source of foodborne illnesses will operate under more stringent food safety requirements and checks.

This is reflected in section 4 of the *Food Act 2014*, which provides that the purpose of the Act is to:

- restate and reform the law relating to how persons trade in food
- achieve the safety and suitability of food for sale
- o maintain confidence in New Zealand's food safety regime
- provide for a risk-based measure that minimises and manages risks to public health and protect and promote public health
- provide certainty for food businesses in relation to how the requirements of this Act will affect their activities
- require persons who trade in food to take responsibility for the safety and suitability of that food.

3.3 Development of licensing scheme

Previously, food business licensing was detailed under the *Food Act 1981*. In 2003, the New Zealand government commenced the Domestic Food Review, a review of government involvement in the domestic food sector that ran over a 4-year period. The Domestic Food Review identified a number of problems with New Zealand's food regime, including:

- o a significant and rising incidence of foodborne illness among the New Zealand population the cost to New Zealand society from foodborne illness was estimated to be \$NZ162 million, of which approximately 62% was private household and individual costs related to the cost of pain, suffering and disruption
- the existence of three different food licensing regimes and regulators operating simultaneously, with poor lines of accountability and unnecessary confusion, inconsistency, duplication and complexity the review identified that there was confusion about when government is involved; a significant number of businesses that were unaware of the legislation they must meet to ensure the food they sell is safe and suitable; and uncertainty regarding who administers the legislation. These factors led to non-compliance, unnecessary regulatory costs, and significant and unnecessary compliance costs
- the absence of sufficient risk assessments in the food sector the previous regulatory regime applied a one-size-fits-all approach to food safety, applying the same requirements on food businesses without regard to the level of risk involved, or whether the purpose of food sales is for profit or charity purposes

The Domestic Food Review identified that the food regulatory regime needed to be improved. The objective of the reform was to develop a new framework that provided an efficient, effective and risk-based food regulatory regime to manage food safety and suitability issues, and to meet the Government's objectives of providing improved business certainty and reducing compliance costs. This led to the establishment of the licensing framework enshrined in the *Food Act 2014*.

3.4 Operation of licensing scheme

The Food Act 2014 established a single licensing scheme for all food businesses in New Zealand, and introduced different registration and reporting requirements for businesses operating in different food sectors. The licensing scheme classifies food sectors according to the level of risk that their activities pose to public health (in terms of the safety and suitability of food). There are three classifications in determining business obligations:

- O high risk businesses This includes manufacturers of: meats, poultry or fish products; dairy products; food for vulnerable populations (e.g. food for children, pregnant women, or people with compromised immune systems); processed egg products; fresh ready-to-eat salads, etc. Businesses in this category are required to:
 - develop a written Food Control Plan that identifies possible risks, and documents how the business will manage those risks (a template plan is provided by the Ministry for Primary Industries)
 - register the plan with the Ministry for Primary Industries on an annual basis
 - submit to a regular check (or verification) to make sure the plan is being followed
- medium risk businesses This includes manufacturers of: alcoholic and non-alcoholic beverages; dried fruits, vegetables, nuts and seeds; vitamins and minerals; herbs and spices; crisps, popcorn, pretzels or similar snack products; condiments such as sauces, spreads and preserves, etc. Businesses in this category do not require a written plan, but are required to follow requirements for producing safe food set out in the regulations to the Act. There are three sub-categories of requirements that vary in terms of their level of intrusiveness:
 - National programme level 3: this applies to the likes of brewers/distillers, food additive manufacturers, fruit drink and flour manufacturers, and requires:

 (a) registration of business details with the local council;
 (b) an initial check to make sure the processes used are safe, and follow up checks at least once every 2 years
 - National programme level 2: this applies to the likes of bread bakeries, manufacturers of jams, chips, confectionery, sauces and spreads, and requires: (a) registration of business details with the local council; (b) an

- initial check to make sure the processes used are safe, and follow up checks at least once every 3 years
- National programme level 1: this applies to growing and harvesting crops in the commercial horticulture sector and the likes of manufacturers of frozen fruit and vegetables, and requires: (a) registration of business details with the local council; (b) an initial check to make sure the processes used are safe, and possible future checks
- low risk businesses This includes convenience stores or nurseries where food provision is not the primary activity. Businesses in this category are not required to operate under a food control plan or national programme.

3.5 Best practice features

Licence obligations differ according to a risk-based assessment

An efficient licensing framework ensures that the nature and extent of regulation is proportionate to the risk of market failure. In general, a business that imposes a larger risk of market failure should be subject to a more stringent regulatory regime than other businesses. Ensuring that licence obligations vary proportionately with the risk imposed by a business is consistent with regulatory best practice since it ensures that coverage of the licensing scheme is minimised to only those businesses that require regulation, conduct rules are kept to a minimum (so low risk businesses are not over regulated), and regulatory and administration costs are minimised.

The licensing scheme set out under the *Food Act 2014* is an example of a framework that incorporates this risk-based assessment. A key feature of this scheme is that a business' licence obligations differ according to an assessment of the food safety risk imposed by the business. Only businesses classified as 'high risk' are required to register a written Food Control Plan and submit to annual compliance checks by the regulator. Medium-risk businesses are subject to less onerous registration and surveillance obligations since they are not required to submit a Food Control Plan, and are subject to less frequent compliance checks (e.g. every 2 or 3 years). Low risk businesses fall outside of the licensing scheme, and so are unregulated.

This sliding scale recognises that adoption of a 'one-size-fits-all' licence regime will not be efficient in circumstances where different licensees impose different types or levels of risk. In this case, coverage is minimised since businesses that impose very little or no food safety risk are not subject to the scheme. Further, conduct rules (reflected in registration, reporting and surveillance requirements) decrease proportionately with the level of food safety risk imposed by the relevant licensees. This reduces the risk of over-regulation for lower-risk businesses, and also ensures that regulatory and administrative costs are commensurate with the risks imposed.

Keeping licence holders informed about their obligations

When implementing a new regulatory framework, or modifying an existing one, it is important to ensure that licensees are properly informed of the obligations they are required to meet. Clear and detailed information on licensing requirements is consistent with regulatory best practice since it reduces the risk of non-compliance, increases accountability, and reduces compliance costs.

To that end, the Ministry for Primary Industries website provides clear and detailed information on how to apply the licensing scheme under the *Food Act 2014*. This includes:

- a guide to assist businesses in identifying the regulatory requirements they are required to meet (based on the detailed classifications set out in the Act)
- a guide to developing a Food Control Plan for high risk businesses, including the provision of a template plan that businesses can use
- a guide to assist businesses with existing food safety programmes to manage the transition from the old regulatory framework to the new licensing scheme, including a defined transition timeline
- guidance on the registration process for each group of food business
- information to assist businesses in maintaining high levels of food safety (and so ensure compliance with requisite food standards), including information on food allergies, food-borne bacteria and viruses, links to food safety codes and standards, etc.
- information on how monitoring and surveillance activities under the licensing scheme will be carried out

These resources clarify what the changes to the licensing scheme are, how the new rules apply to businesses, and what is required for compliance with the new food safety standards, thereby reducing compliance costs for businesses. Furthermore, the use of standard Food Control Plan templates and national programmes ensures consistency between food businesses, reducing regulatory costs for the Ministry for Primary Industries.

3.6 Evidence of benefits due to licensing scheme

There has been no formal review of the licensing scheme under the new *Food Act* 2014. This is likely because the transition period for food businesses to the new scheme is ongoing, and is only due to be completed by 28 February 2019. The New Zealand government has not indicated when a formal review of the impact of the new licensing scheme will take place.

Sources:

- Ministry for Primary Industries. Food Act 2014. Available at: https://www.mpi.govt.nz/food-safety/food-act-2014
- New Zealand Legislation. Food Act 2014. (June 2014). Available at: http://www.legislation.govt.nz/act/public/2014/0032/latest/DLM2995811.html
- Ministry for Primary Industries. Proposals for regulations under the Food Act 2014 Regulatory Impact Statement. (March 2016). Available at: http://www.treasury.govt.nz/publications/informationreleases/ris/pdfs/ris-mpi-pfr-mar16.pdf
- New Zealand Treasury. Regulatory Impact Statement 2009 A Reformed Food Regulatory Regime. (October 2009). Available at: http://www.treasury.govt.nz/publications/informationreleases/ris/pdfs/ris-nzfsa-rfrr-oct09.pdf
- Applied Economics. The economic cost of foodborne disease in New Zealand. (November 2010).
 Available at: http://www.appliedeconomics.com.au/my/docs/7639/foodborne-disease-nz-2010.pdf
- Ministry for Primary Industries. Template Food Control Plan. (March 2017). Available at: https://www.mpi.govt.nz/dmsdocument/16684-simply-safe-and-suitable-food-control-plan-template

4 New Zealand air transport

4.1 Summary of licensing scheme

Item	Description
Name of licence	AIRCARE accreditation
Jurisdiction	New Zealand
Overview	AIRCARE is a voluntary, industry led accreditation programme open to all general aviation businesses in New Zealand. In order to be accredited, a business must demonstrate that it has in place the necessary systems and procedures to ensure compliance with relevant legislation and codes of practice, principally relating to safety and environmental outcomes. Accredited businesses are also subject to regular audits by independent third parties to ensure ongoing compliance with these requirements.
Regulatory body	Industry-led, endorsed by the Ministry of Transport
Best practice features	Best practice regulation involves adopting the minimum level of government intervention required to achieve stated objectives. This can minimise regulatory and administrative costs, and create fewer restrictions on businesses and competition.
	Under certain conditions, a voluntary accreditation programme may be sufficient to achieve specific regulatory objectives. These conditions include high industry participation, which may arise in competitive sectors where businesses are incentivised to distinguish themselves by maintaining accreditation. In these cases, the voluntary scheme should be preferred over a more onerous mandatory licensing scheme, as it can result in a higher net benefit.
Evidence of benefits due to licensing scheme	A study by Oldham et.al (2017) found that accreditation under the AIRCARE programme is correlated with fewer overall safety and environmental incidents. Observed incident rates (that is, the combined number of accidents, incursions, discharges, low flying occurrences, and equipment defects) were lower for accredited operators vis-à-vis non-accredited operators at a statistically significant level.

4.2 Purpose of licensing scheme

The AIRCARE accreditation programme was launched in 2011, with the purpose of improving safety in the aviation sector, simplifying compliance with safety and environmental requirements, guaranteeing a minimum level of quality of service

(for air rescue, flight training providers and aerial firefighting), and building the aviation sector's customer loyalty.

4.3 Development of licensing scheme

The AIRCARE accreditation programme was launched at Parliament by the then Associate Minister of Transport, Nathan Guy, in 2011. It was developed following a review by the New Zealand Agricultural Aviation Association, which identified strategic threats to the aviation industry arising from a history of poor environmental and safety performance. The New Zealand Agricultural Aviation Association is a voluntary industry organisation for operators of agricultural aviation i.e. the use of aircraft in the application of agrichemicals and fertilisers in agriculture, including forestry and horticulture.

The New Zealand Agricultural Aviation Association identified four risks that had the potential for negative impact on the industry, namely:

- 1. tighter environmental regulations on aerial application of agrochemicals, which have effectively shut down parts of the sector in Europe, may threaten the viability of the industry
- 2. a continued high rate of accidents and fatalities could lead to heavy regulatory intervention, potentially threatening the viability of the industry
- 3. reduced public tolerance of amenity effects such as noise and spray drift
- 4. the potential of losing access to crown estates for aviation tourism activities.

The New Zealand Agricultural Aviation Association decided to take a proactive approach to these threats by building a credible system of industry-led initiatives, of which the accreditation programme is the centrepiece. The programme has since been expanded into other aviation sectors.

4.4 Operation of licensing scheme

The AIRCARE accreditation programme is open to all general aviation businesses in New Zealand. In broad terms, general aviation covers flying that is not operated by airlines, chartered operators or the military. Accordingly, it encompasses a broad range of flying: agricultural aviation, flight training, aerial firefighting, medical transport, aerial mapping, aerial law enforcement, search and rescue, recreational flying, etc.

Accreditation under AIRCARE requires a general aviation business to demonstrate that it has in place the necessary systems and procedures to ensure compliance with relevant legislation and codes of practice. The programme covers three areas of aviation operations:

• safety – mandatory under the Civil Aviation Act

- *environmental impact* voluntary codes that generally relate to discharges to land, water and air, and amenity values, such as noise pollution
- *performance* voluntary codes that are specific to certain professional practices, such as air ambulance / air rescue services, flight trainers, aerial firefighting.

Accreditation requires compliance with *all* codes relevant to a specific sector or industry, including voluntary codes. Accreditation requirements differ between industry sectors and are not transferred. For example, a helicopter organisation accredited to the New Zealand Agricultural Aviation Association codes cannot convert its helicopter permanently to an air ambulance and operate as such until it is accredited under the New Zealand Aero Medical Standard.

Businesses accredited under AIRCARE are audited by an independent third party (selected through a tender process) to ensure compliance with relevant legislation and codes of conduct. Such audits were introduced into the scheme to provide credibility. Further, it recognises that small operators who characterise the sector often do not have the capacity in terms of skills and resources to effectively implement the required systems. As such, typically an hour of field audit time is devoted to educating operators on how to improve safety and performance, and reduce environmental impact, such as identifying potential hazards and adopting risk management processes. An operator is only accredited if all shortcomings have been resolved within six weeks of the audit (three months for new entrants), allowing operators to implement best practice systems within a limited timeframe.

New entrants to the AIRCARE programme are restricted to a one-year accreditation period, after which they can be accredited for periods of up to 3 years, depending on their audit performance.

4.5 Best practice features

Industry led accreditation as an alternative to mandatory licensing

Options for licensing schemes form a spectrum – ranging for mandatory licensing schemes with strict registration requirements, ongoing compliance checks, and the imposition of penalties for breaches of licence conditions, to voluntary schemes that are designed to encourage (rather than mandate) specific actions, behaviours or attributes.

The appropriate point on this spectrum for a given sector or industry will be the minimum level of intervention that is required to achieve the objectives of the scheme. For instance, it would not be appropriate to adopt a mandatory licensing scheme in circumstances where a voluntary scheme would achieve the same objective. A mandatory licensing scheme is more likely to impose higher regulatory and administrative costs, and restrict business activity and competition.

The minimum level of regulation will depend on the characteristics of the industry. In some cases, a mandatory licensing scheme is necessary because:

- the detriment from not meeting certain outcomes may give rise to significant costs, justifying the larger costs associated with developing, administering and complying with the scheme, or
- o participants would not be incentivised to engage in a voluntary scheme.

However, in other cases, a voluntary accreditation programme, which can be lower cost, and easier to develop and maintain, would result in a larger net benefit.

This raises the question: what conditions are required for voluntary schemes to work? In order for industry participants to engage in a voluntary programme, they must view it as making a discernible improvement to their business. This may occur, for instance, when an industry is highly competitive, so that businesses are incentivised to distinguish themselves by maintaining accreditation. There must be also be a genuine commitment to cooperation; that is, voluntary accreditation only works when a significant number of industry participants support it. This may occur if there is a legitimate risk of more onerous regulation being imposed.

In the present case, a key reason for uptake of the scheme is recognition amongst industry participants that a proactive approach to regulation was required to avoid more onerous regulation being imposed and ensure the viability of the industry. Acceptance of the scheme, and its success in achieving safety and environmental objectives, suggests that a more onerous mandatory regime is not required, at least as long as the threat of a mandatory regime remains.

4.6 Evidence of benefits due to licensing scheme

A study by Oldham et.al (2017) suggests that accreditation under the AIRCARE programme is correlated with fewer safety and environmental incidents. Observed incident rates (that is, the combined number of accidents, incursions, discharges, low flying occurrences, and equipment defects) for accredited operators was lower than non-accredited operators by about 32 per cent, a difference that is statistically significant when using a 90% confidence interval.

Sources:

- 1. Aviation New Zealand. AIRCARE Explained. Available at: https://www.aia.org.nz/AIRCARE.html
- Oldham et al. Case study: driving safety culture in small enterprises an industry-led initiative.
 (2013). Available at: https://www.witpress.com/Secure/elibrary/papers/SAFE13/SAFE13038FU1.pdf
- Oldham et al. Case study of a voluntary aviation safety and environmental accreditation programme. (Mar 2017). Available at: https://ac.els-cdn.com/S0925753517303387/1-s2.0-S0925753517303387-main.pdf?_tid=spdf-e9387724-4ff4-4bfd-ba86-1c343869c2df&acdnat=1519621130_db3fa3b2ab8533626a5bf3be85bfbf7c

5 UK finance

5.1 Summary of licensing scheme

Item	Description	
Name of licences	Senior Managers and Certification Regime	
Jurisdiction	United Kingdom	
Overview	The Senior Managers and Certification Regime is a licensing scheme that came into force in March 2016, applying to certain persons working in the financial services sector of the United Kingdom. The scheme requires that senior managers be preapproved by the regulator, and that all employees who could pose significant harm to the firm or consumers be subject to an assessment of fitness and propriety by the firm, as well as comply with certain conduct rules set by the regulator.	
	The licensing scheme was introduced to increase the liability of individuals working in banking, insurance and other firms regulated by the Financial Conduct Authority, in order to encourage a culture of accountability within financial firms, and to make sure firms and staff understand and can demonstrate where responsibility lies.	
Regulatory body	Financial Conduct Authority	
Best practice features	Licence requirements should align incentives with licence objectives. The Senior Managers and Certification Regime introduces a reasonable likelihood of punishment for senior managers in the case of gross misconduct. This aims to improve the efficacy of the punishment mechanism, allowing individuals to also be responsible for bank failures, thus aligning individual incentives with licensing objectives. At the same time, regulatory and administrative costs are minimised by curbing overreach in terms of coverage and reporting requirements.	
Evidence of benefits due to licensing scheme	The Senior Managers and Certification Regime commenced in March 2016. Between 7 March 2016 and 31 October 2016, 32 firms reported 75 conduct rule breaches and 89 disciplinary actions. Given its recency, a formal evaluation of the benefits arising from the scheme has not yet been undertaken.	

5.2 Purpose of licensing scheme

The overarching objective of the Senior Managers and Certification Regime is to reduce harm to consumers and strengthen market integrity by making individuals

and firms operating in the financial sector more accountable for their conduct and competence. The scheme is designed to encourage a culture of staff at all levels taking responsibility for their actions, and to make sure firms and staff clearly understand and can demonstrate where responsibility lies. While each firm's liabilities are maintained, the scheme also places responsibility on individuals within each firm.

5.3 Development of licensing scheme

Prior to 2013, the financial sector in the United Kingdom was regulated under the Approved Persons Regime (which covered board members, senior executives, internal control functions, and certain customer facing roles). In response to the 2008 banking crisis and significant conduct failings such as the manipulation of the London Inter-Bank Offered Rate, the government set up the Parliamentary Commission for Banking Standards to recommend how to improve standards in the banking sector. In its 2013 report, the Commission highlighted the ineffective nature of the Approved Persons Regime, noting that it:

"... created a largely illusory impression of regulatory control over individuals, while meaningful responsibilities were not in practice attributed to anyone. As a result, there was little realistic prospect of effective enforcement action, even in many of the most flagrant cases of failure."

This view was supported by the Chief Executive of the Financial Conduct Authority, who in September 2013 also noted the regulator was mostly unable to successfully bring charges against senior management for gross misconduct since it was:

'... hard to nail an individual against responsibility because matrix organisation structures and committee decision making means that individuals can always defuse responsibility.'

The Commission recommended revising the existing licensing scheme to enhance individual accountability for senior managers, and require financial firms to take more responsibility for their employees being fit and proper. It also recommended introducing a single set of conduct rules for employees (other than ancillary staff), where a breach would constitute grounds for enforcement action by regulators. The new scheme covers a larger subset of persons, and introduces a more effective punishment mechanism for senior managements who engage in gross misconduct.

This led to the *Banking Reform Act 2013*, which created the legislative framework for the Senior Managers and Certification Regime.

5.4 Operation of licensing scheme

The Senior Managers and Certification Regime has three key parts:

- the Senior Managers Regime: Senior managers performing key roles require Financial Conduct Authority approval (which involves criminal record checks and regulatory references) before starting their roles. Firms need to certify annually that senior managers are suitable to do their jobs. Every senior manager is required to produce a 'statement of responsibilities,' clearly stating what they are responsible and accountable for, introducing individual accountability during breach of conduct investigations. A criminal offence has been introduced for decisions causing a financial institution to fail.
- the Certification Regime: Firms need to certify annually the fitness and propriety of employees not covered by the Senior Managers Regime, but who could still pose significant harm to the firm or to customers.
- Conduct Rules: Firms are required to train all staff other than ancillary staff in complying with specified Conduct Rules shown in Table 1 below, and to notify the Financial Conduct Authority when someone breaches a Conduct Rule. A breach in Conduct Rules constitutes grounds for enforcement action by regulators. The first five conduct rules apply to almost everyone in the banking sector, while the latter four apply only to senior managers:

Table 1: Conduct rules

No.	Rule		
First	First tier – Individual Conduct Rules		
CR1	You must act with integrity		
CR2	You must act with due skill, care and diligence		
CR3	You must be open and cooperative with the FCA, the PRA and other regulators		
CR4	You must pay due regard to the interests of customers and treat them fairly		
CR5	You must observe proper standards of market conduct		
Seco	Second tier – Senior Management Conduct Rules		
SM1	You must take reasonable steps to ensure that the business of the firm for which you are responsible is controlled effectively		
SM2	You must take reasonable steps to ensure that the business of the firm for which you are responsible complies with the relevant requirements and standards of the regulatory system		
SM3	You must take reasonable steps to ensure that any delegation of your responsibilities is to an appropriate person and that you oversee this effectively		
SM4	You must disclose appropriately any information of which the FCA or PRA would reasonably expect notice		

Source: Financial Conduct Authority

Firms are required to report breaches of the Senior Managers and Certification Regime, and any formal internal disciplinary action taken towards the offending individual, to the Financial Conduct Authority. The Authority has the right to take additional disciplinary action if deemed necessary.

5.5 Best practice features

Licence requirements align incentives with licence objectives

Licensing schemes are used to address market failures by incentivising licensees to behave in a way that is not economically or socially detrimental, in line with the licensing objectives. For incentives to be effective, there is commonly either a punishment or reward ('stick or carrot') mechanism. When using punishments, the licensing scheme must be sufficiently clear to establish wrongdoing, and provide certainty of enforcement action for any wrongdoing. The converse applies for a reward based system – the licensing scheme must clearly establish when a reward is due, and effectively allow for the reward to be received. The absence of these factors will undermine the incentives placed on licensees, which will in turn undermine the capacity of the licensing scheme to achieve its stated objective.

In the present case, the 2013 Parliamentary Commission report found that bankers at senior levels:

"...dodged accountability for failings on their watch by claiming ignorance or hiding behind collective decision making. They then faced little realistic prospect of financial penalties or more serious sanctions commensurate with the severity of the failures."

The existing framework did not clearly and sufficiently clarify the responsibilities of senior managers and other staff in the financial sector, and did not clearly set out the standards to which they will be upheld. This made enforcement action by regulators difficult. Given the low likelihood of punishment for misconduct, senior managers were incentivised to take excessive risks at the expense of social good.

In addition to absorbing licensing requirements under the previous Approved Persons Regime (which is meant to place responsibility on individuals), the Senior Managers regime introduced stronger enforcement mechanisms – statements of responsibilities and criminal offences for senior managers. These changes seek to improve the enforcement of individual accountability for major decision makers in financial firms, who are more likely to have significant responsibility in banking failures. Statements of responsibilities allow authorities to pinpoint the individuals who should be held liable for gross misconduct, and thus mitigate the difficulty in bringing charges against senior managers. In other words, licence requirements were modified to enhance and align the incentive properties of the licensing scheme with its objectives of individual responsibility. Nevertheless, while enhancing individual liability is the focus of the Senior Manager and Certification Regime, liability on each firm is still maintained via existing regulations.

5.6 Evidence of benefits due to licensing scheme

The Senior Managers and Certification Regime commenced in March 2016. From 7 March 2016 to 31 October 2016, 32 firms reported 75 conduct rule breaches and 89 disciplinary actions. Given its recency, a formal evaluation of the benefits arising from the scheme has not yet been undertaken.

Sources:

- Financial Conduct Authority. Senior Managers and Certification Regime. (Jul 2017). Available at: https://www.fca.org.uk/firms/senior-managers-certification-regime
- Financial Conduct Authority. Strengthening Accountability in Banking Senior Managers & Certification Regime. Available at: https://www.fca.org.uk/publication/documents/strengthening-accountability-in-banking-slides.pdf
- Norton Rose Fulbright. The new accountability regime. Available at: http://www.nortonrosefulbright.com/knowledge/publications/123899/the-new-accountability-regime
- Allen & Overy. The Banking Reform Act 2013. Available at: http://www.allenovery.com/publications/en-gb/lrrfs/uk/Pages/The-Banking-Reform-Act-2013.aspx
- The Guardian. Who are the worst rogue traders in history? (Sep 2011). Available at: https://www.theguardian.com/business/2011/sep/15/who-are-worst-rogue-traders
- House of Lords and House of Commons. Parliamentary Commission on Banking Standards Volume 1: Summary, and Conclusions and recommendations. (Jun 2013). Available at: http://www.parliament.uk/documents/banking-commission/banking-final-report-volume-i.pdf
- Financial Conduct Authority. Annual Report and Accounts 2016/17. (July 2017). Available at: https://www.fca.org.uk/publication/annual-reports/annual-report-2016-17.pdf

6 British Columbia reform initiative

6.1 Summary of initiative

Item	Description
Name of program	British Columbia reform initiative
Jurisdiction	British Columbia, Canada
Overview	Since 2001, the British Columbia government has undertaken a continuous initiative to reduce regulatory burden on businesses. Specific measures include the establishment of a Red Tape Reduction Task Force, a Net Zero Increase regulation target (for every regulation introduced, at least one other existing regulation needs to be eliminated), and an online platform for the public to provide suggestions on regulatory improvement.
Regulatory body	Regulatory and Service Improvement Branch of the Government of British Columbia
Best practice features	The British Columbia government undertakes an annual review of its regulatory regime to ensure that there is ongoing improvement. As a result, reforms are prioritised by the government and ongoing: unnecessary licences are eliminated, efficiency and compliance is enhanced over time, and modern processes are introduced to continually reduce the costs of licensing administration.
	In addition, significant consultation with the private sector assists in identify problems with existing licensing frameworks, and potential solutions, and thereby assist in targeting reform initiatives to priority areas.
Evidence of benefits due to licensing scheme	Annual reports published by the Regulatory and Service Improvement Branch highlight the continual progress made, including a consistent reduction in regulatory count (number of regulatory requirements for businesses), the removal or rationalisation of various licenses, and the implementation of streamlined licensing application processes.
	Between 2001 and 2017, the government reduced regulatory count by almost 50%. As of June 2017, nearly 250 red tape reduction projects had been undertaken, with many of the ideas submitted through the Help Cut Red Tape website. A further 3,300 unnecessary or obsolete regulatory requirements were eliminated in the prior year.

6.2 Purpose of initiative

The overarching objective of the initiative is to reduce regulatory burden. This is achieved by:

- eliminating unnecessary regulatory requirements, including licensing of businesses and occupations
- reducing the time and cost for citizens and businesses in accessing government services or complying with regulatory requirements through a combination of process change and technological improvements
- strengthening public accountability for red tape reduction by maintaining an accurate picture of current regulatory requirements, and reporting on progress the government is making to reduce unnecessary red tape.

6.3 Development of initiative

In the 1990s, economic growth and employment in British Columbia was generally lower than other parts of the country. Excessive regulation was often cited as a major contributor to the states' economic underperformance. For example, it was estimated that forestry regulations imposed an additional ~AUD 1 billion cost with no corresponding benefit to society. In a 1998 survey of mining companies, British Columbia scored last out of 31 jurisdictions based on investment attractiveness, scoring particularly unfavourably in terms of regulatory certainty and consistency.

During the 2001 election campaign, there was particular concern for the ailing provincial economy, with excessive red tape often cited as a significant contributor to British Columbia's economic underperformance. The Liberal government made a commitment to reduce regulatory burden (measured by the number of regulatory requirements for businesses) by one-third in three years, and won by a landslide. Post-election, the new position of minister of state for deregulation was created, whose only responsibility was regulatory reform.

The aggressive regulatory reform initiative is underpinned by a belief that an efficient regulatory regime which avoids placing an undue burden on citizens and businesses is in the best interest of British Columbians, and a key pillar for economic growth. An efficient regulatory environment is especially important for small businesses, who may struggle to keep track of and comply with provincial requirements due to limited staff and financial resources. In fact, the overwhelming majority of businesses in British Columbia are small and medium enterprises (~80% of businesses employ less than five staff).

6.4 Operation of initiative

In 2001, the Red Tape Reduction Task Force was established, comprising twelve members representing industry and sector associations. In its first year, the Task Force made recommendations to government based on 600 proposals received from the business community for reducing red tape. Extensive consultation with the private sector was essential in identifying pain points and recommendations to reduce regulatory burden. Ministers were asked to prepare three-year deregulation plans outlining targets and how they would be met. The minister of deregulation gave the priorities and recommendations of the Red Tape Reduction Task Force to other ministers to consider as they prepared these plans.

In 2004, as the one-third reduction target was met, a new Net Zero Increase target was introduced – i.e. for every new regulation, there must be at least one existing requirement eliminated. This put the onus on the government to make the case that additional regulation was necessary, to ensure adequate consultation, to keep compliance flexible, and to reduce the total amount of regulation. It also required continuous monitoring of regulatory count (that is, the number of regulatory requirements that businesses are required to meet), with the provincial government publishing quarterly reports providing such data.

In addition, licensing processes were streamlined and access to government services were enhanced via a combination of process changes and technological improvements. For example, regulatory amendments were introduced in 2016-17 which meant that individuals with international qualifications as power engineers were no longer required to complete duplicate training and experience. Also, onRouteBC, an online permit system, was introduced to allow commercial truckers travelling within British Columbia to apply for permits online. These initiatives, among others, minimised the time and cost for citizens to access government services and comply with regulatory requirements.

6.5 Best practice features

Ongoing review of licensing to ensure continuous improvement

Changes in a market or other external factors may alter the underlying rationale for a licensing scheme, and impact on whether the scheme, or certain elements of the scheme, are still required. For instance, advances in technology may make it easier for competitors to enter the market, increasing competitive pressure and reducing the need for regulation. Technological advances may also alter or introduce new best practice features, for instance, by allowing for licence registration and renewal to occur online, and thereby reducing regulatory and compliance costs. In addition, licensing schemes may need to be updated to account for changes in government policy, legislation, or industry codes, which may impact the standards that licence holders are required to meet.

Continual review of licence suitability in view of ongoing market changes is critical to ensuring that a licensing scheme remains relevant, effective, and consistent with regulatory best practice. While a review is key to identifying the need for reform,

it does not mean that reform will necessarily follow – a commitment to action steps to address any shortcomings identified by the review is also required.

The British Columbia reform initiative demonstrates the benefits that can be achieved by adopting a program of continual licence review. The continual review of licensing frameworks assists in identifying areas of reform, while the process of setting targets, making public the government's progress in achieving these targets, and establishing a dedicated Minister to oversee the reform process, ensures that any shortcomings identified by the reviews are addressed.

The benefits attributable to this initiative include the following:

- removal of unnecessary restrictions market changes may mean that existing licensing schemes or requirements are no longer required. Review processes allow governments and regulators to re-assess the fundamental rationale for licensing, licensing design and administration. Updating licensing schemes to account for changes in the market environment ensures that any unnecessary obstacles to competition, innovation and growth are removed. For example, the new Liquor Control and Licensing Act in 2017 updated antiquated laws to allow more businesses (including theatres, public festival vendors) to apply for a liquor licence, opening up new revenue streams and increasing consumer choice;
- improving performance and compliance regular reviews of licensing schemes enable regulators to assess how the schemes are performing in practice, and to identify any issues that are affecting performance or compliance. Issues may arise from an unnecessarily complex regulatory environment, or from overly burdensome, confusing, overlapping or outdated terms. Regular maintenance of licensing schemes will assist regulators in addressing these issues, thereby improving compliance and reducing administration and regulatory costs. For example, food labelling regulations were rationalised and reworded to make them easier for businesses to understand. Also, in the past year, the application process for electric vehicles to be used in high occupancy vehicle lanes (to encourage zero emission vehicle adoption) has seen a 50% reduction in number of application steps. Additional program information was also provided via an expanded FAQ list. These changes reduced application turnaround times from 4-6 weeks to 1-2 weeks, and a 50% reduction in staff time per application;
- o modernising regulation review frameworks allow licensing schemes to take advantage of modern processes and technology to ease regulatory burden and cost. This includes introducing online tools or improved information and data management systems to streamline licensing requirements, such as registration, maintenance, approval, and notification protocols. Modernising regulation will ensure that compliance processes remain convenient, accessible and reliable. For example, in 2017-18, the new BC Mine Information website now makes publicly available mining authorisations, as well as mine inspection reports

(more mine-related information will later be added to the site). Also, in 2016, the government of British Columbia launched an online portal for individuals to apply for and obtain hunting licences (BC Hunting Online Service);

Frequent, meaningful and broad-based stakeholder consultation underpins the above benefits, as the private sector is often the most well-informed, and thus best placed to identify issues with the current regulatory regime, as well as make effective recommendations to resolve the issues. In British Columbia, Ministries would often announce a review of a particular act or set of regulations, and ask for submissions containing suggestions from interested stakeholders.

Consultation to identify priority areas of reform

Reform initiatives should be targeted to the areas that will provide the greatest net benefit. Businesses and individuals that interact with licensing frameworks are well placed to assist governments and regulators in identifying problems and potential solutions with existing licensing frameworks. Consultation with the private sector ensures that reform initiatives are targeted to priority areas, and will achieve reform objectives.

In the first phase of British Columbia's reform initiative, the government consulted widely with private businesses. As noted above, the Red Tape Task Force, largely made up of industry representatives, was established and tasked with reviewing and prioritising 150 different submissions with 600 proposals for reform from the business community. In addition, the Net Zero Increase target puts the onus on the government to make the case that additional regulation is necessary, which in turn encourages ongoing consultation with businesses on the need for additional regulation.

Stakeholder consultation is a key element of the success of the British Columbia reform initiative. Some examples of change driven by consultation are below:

- O Streamlined process for hazardous waste applications the Ministry of Environment conducted a considerable volume of public and stakeholder consultations which identified a number of sticking points in the old process. The new streamlined process has resulted in an average reduction of 185 days to process a hazardous waste application. This helps avoid stalling businesses, while reducing potential risks due to delays.
- O Streamlined and modernised building code Extensive consultation with industry stakeholders revealed British Columbia's building regulatory system was overly complex, time consuming, and costly for builders and consumers. To address these concerns, the government introduced a new Building Act to streamline and modernize the regulatory system throughout British Columbia. The Act increases consistency across the province by limiting the authority to set building requirements, making it easier for the construction industry to understand and follow 'the rules' when building in British Columbia.

In both cases, consultation with stakeholders was identified by the government as a contributing factor to designing the reform initiative.

6.6 Evidence of benefits due to licensing scheme

Since 2011, the Regulatory Reporting Act has required the government to produce an annual report every year on its regulatory reform progress, including a consistent reduction in regulatory count (number of regulatory requirements for businesses), the removal or rationalisation of various licenses, and the implementation of streamlined licensing application processes.

As shown in Figure 1 below, between 2001 and 2017, the government reduced regulatory requirements by almost 50%. While there were other factors at play in British Columbia's economic turnaround in that time period, members of the business community widely credit red tape reduction with playing a critical role.

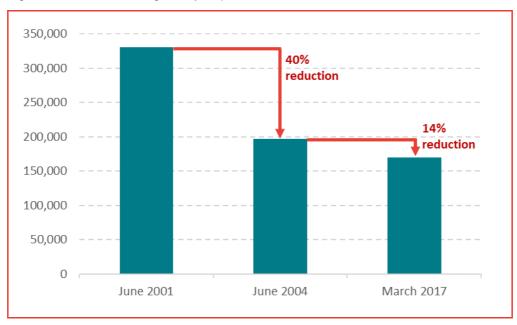


Figure 1: Reduction in regulatory requirements in British Columbia

Source: Government of British Columbia, Regulatory Requirement Count as of 31 March 2017

As of June 2017, nearly 250 red tape reduction projects have been undertaken, with many of the ideas submitted through the Help Cut Red Tape website. A further 3,300 unnecessary or obsolete regulatory requirements were eliminated in the prior year. From 2012-2017, the government's efforts in reducing the level of regulatory burden have earned an "A" grade each year (unmatched by other provinces) from the Canadian Federation of Independent Business.

Sources:

- Regulatory and Service Improvement overview, as well as annual reports are available at: https://www2.gov.bc.ca/gov/content/governments/about-the-bc-government/regulatory-reform/regulatory-service-improvement
- Regulatory and Service Improvement Branch. 6th Annual Report 2016/2017. (2017). Available at: https://www2.gov.bc.ca/assets/gov/government/about-the-bc-government/regulatory-reform/pdfs/5330 regreform ar 2017 web.pdf
- 3. British Columbia government. Regulatory Requirement Count as of 31 March 2017. Available at: https://www2.gov.bc.ca/assets/gov/government/about-the-bc-government/regulatory-reform/pdfs/2016 17 regulatory requirements count.pdf
- Mercatus Research. Cutting Red Tape in Canada: A Regulatory Reform Model for the United States? (Nov 2015). Available at: https://www.mercatus.org/system/files/Jones-Reg-Reform-British-Columbia.pdf
- British Columbia government. New modern liquor laws come into effect. (Jan 2017). Available at: https://news.gov.bc.ca/releases/2017SBRT0003-000121
- British Columbia government. Home Inspectors. (Jan 2017). Available at: https://www2.gov.bc.ca/gov/content/housing-tenancy/buying-and-selling/home-inspectors

7 British Columbia seafood

7.1 Summary of licensing scheme

Item	Description	
Name of licences	Seafood Processor licence; Fish Receiver licence; Fisher Vendor licence	
Jurisdiction	British Columbia, Canada	
Overview	The primary objectives of the licensing scheme reform undertaken in 2015-16 were to reduce regulatory burden and improve food safety standards, while continuing the collection of important economic data. Consolidation of licensing occurred for seafood-related businesses across the value chain, from fishermen / fish farms to processors to distributors (but not retailers).	
Regulatory body	Ministry of Agriculture	
Best practice features	Duplicative licensing between agencies has been reduced. Under the <i>Fish and Seafood Act 2017</i> , exemptions are provided to businesses already regulated under other regimes. For example, a fisher vendor licence is not required for those who already hold a federal licence. Assuming appropriate compliance and enforcement under the federal licence, this reduces regulatory costs, with no corresponding deterioration in licensing outcomes. Furthermore, conduct rules have been updated to be outcomes based, allowing for increased flexibility to accommodate improving technologies while maintaining food safety outcomes. For example, the updated regulations needed to allow for the use of modern processing methods such as modified atmospheric packaging, in response to market shifts away from traditional processing methods such as drying and salting of seafood. The shift towards an outcome based regime allows food businesses to continually adopt improved technologies and minimise costs, while meeting the primary objective of regulation – ensuring food safety standards.	
Evidence of benefits due to licensing scheme	The licensing reform commenced in January 2017. Given its recency, a formal evaluation of the benefits arising from the scheme has not yet been undertaken. However, in 2017, a non-compliance rate of approximately 1.2% was identified, based on approximately 18,000 regulatory requirements reviewed across 336 inspections and investigations.	

7.2 Purpose of licensing scheme

British Columbia's seafood sector, with a wholesale value of approximately \$1.4bn, is a significant contributor to the provincial economy. The British Columbia government sought to ensure that licensing regulations support a strong and dynamic fish and seafood sector that continues to contribute to the economy, protects public health and advances consumer confidence. As such, the primary objectives of the licensing review included:

- Reducing regulatory burden by eliminating unnecessary licenses, via a review
 of licensing requirements for buying, handling, transporting, processing and
 selling fish, and for harvesting and processing aquatic plants.
- Improving food safety standards for the fish and seafood sector by bringing all operations into alignment with federally registered fish and seafood processing establishments and other food commodity sectors in British Columbia. The objective of this change was to protect public health by comprehensively and consistently managing the risks of foodborne illness across all food production.
- Continuing the collection of important economic data while streamlining reporting requirements and eliminating duplication where possible.

7.3 Development of licensing scheme

Following an extensive consultation with more than 700 stakeholders, including federal agencies, provincial agencies, industry associations, and businesses, the British Columbia government developed a new Fish and Seafood Act. This new Act has a stronger focus on public health and safety, a modern framework focusing on outcome-based results, and flexibility to assist adoption of new processing technologies.

The Fish and Seafood Licensing Regulation accompanies the aforementioned Act.

7.4 Operation of licensing scheme

The Fish and Seafood Licensing Regulation replaces the Aquaculture Regulation, the Fisheries Act Regulation and the Fish Inspection Regulation, eliminating 491 regulatory requirements. There has been no increase in licence fees, and some fees have been removed in an effort to streamline licensing processes. Under the Regulation, the following businesses require licences:

- Aquatic plant culturers
- Wild aquatic plant harvesters
- Fisher vendors

- Fish receivers (retailers are excluded as they are already regulated under Food Premises Regulation)
- Seafood processors (who are now required to develop, maintain and follow a written sanitation plan and a written Hazard Analysis Critical Control Point based food safety plan that addresses all potential food safety concerns)
- Seafood transporters and distributors

The Fish and Seafood Act 2017 eliminated unnecessary licenses, especially for operators already regulated for food safety matters by another agency.

The Act also introduced the Hazard Analysis Critical Control Point system, an internationally recognised, systematic preventive approach to food safety. The system only applies to seafood processors under the Act, and requires businesses to:

- conduct a hazard analysis
- o identify critical control points
- establish critical limits for each critical control point
- establish critical control point monitoring requirements
- establish corrective actions
- establish procedures for ensuring the Hazard Analysis Critical Control Point system is working as intended
- establish record keeping procedures

7.5 Best practice features

Coverage is minimised to reduce duplication between agencies

The coverage of a licensing scheme refers to the entities that are required to be licensed. When determining coverage, regulators should account for the overall regulatory environment that businesses are functioning in. In particular, there should not be duplicate (or conflicting) requirements between different licensing regimes imposed by different regulatory agencies. Duplicate licensing will increase regulatory costs with no correspondent improvement in business licensing outcomes.

British Columbia's Fish and Seafood Licensing Regulation seeks to minimise duplication by introducing several exemptions from licensing within the seafood industry. For example, a fisher vendor licence is not required for those who already hold a federal licence; a fish receiver licence is not required for those who already hold a licence under a provincial food enactment, hold a seafood processor licence, or hold an equivalent federal licence.

The above exemptions reduce regulatory burden for businesses as they no longer need to comply with multiple sets of licensing requirements that govern the same activities and outcomes. Meanwhile, the exemptions also reduce administrative costs for regulators, as there is reduced registration and monitoring of licensees. Licensing outcomes are not significantly compromised as each business is still covered under at least one license with food safety requirements.

Conduct rules are outcome based, to accommodate the use of improving technologies

When business licensing occurs, conduct rules are usually imposed to limit the behaviour of licensees. These rules are intended to mitigate market failures by, for example, improving information, reducing the risk of misconduct or promoting quality and safety.

Best practice licensing conduct rules should be outcome-based instead of being prescriptive. This is so that improvements in technologies or processes can be accommodated within the licensing regime, allowing for the same outcomes to be achieved by businesses at lower cost over time. An outcome based regime allows businesses to be innovative and adopt the most cost-efficient technologies and processes over time, all the while maintaining the same quality levels.

The previous licensing regime for seafood in British Columbia was last significantly updated in the 1960s, and is a process-based regulatory regime. For example, it specified how drying and salting of seafood should occur, with a lack of provisions for development of new techniques for seafood processing such a modified atmospheric packaging.

In contrast, the new licensing regime is outcomes-based, to accommodate the increasing diversity and pace of change in technology available to seafood businesses. To that end, the Hazard Analysis and Critical Control Point system was introduced for seafood processors. The system requires a self-evaluation process to identify critical food safety risk factors, and to focus on mitigating identified risk factors such that food safety levels are kept high.

In the case of British Columbia's licensing for fish and seafood businesses, the shift towards an outcome based regime places the onus for how food safety will be achieved on businesses. This allows food businesses to continually adopt improved technologies as they see fit and in turn minimise costs, while meeting the primary objective of regulation – ensuring food safety standards.

7.6 Evidence of benefits due to licensing scheme

The licensing reform commenced in January 2017. Given its recency, an evaluation of the benefits arising from the scheme has not yet been undertaken.

In 2017, 336 inspections and investigations were conducted under the licensing scheme, with 223 incidences of non-compliance identified. This represents a non-compliance rate of approximately 1.2%, as approximately 18,000 regulatory requirements were reviewed in total. The top three prevalent compliance issues, representing 40% of all non-compliance incidents, were administrative in nature (i.e. developing a sanitation plan, developing a food safety plan, record keeping and reporting). This is likely due to these requirements being newly introduced under the licensing scheme.

Sources:

- Regulatory and Service Improvement Branch. 6th Annual Report 2016/2017, p.10. (2017). Available at: https://www2.gov.bc.ca/assets/gov/government/about-the-bc-government/regulatory-reform/pdfs/5330 regreform ar 2017 web.pdf
- British Columbia government. Fish and Seafood Act. (May 2015). Available at: http://www.bclaws.ca/civix/document/id/lc/statreg/15014
- 3. British Columbia government. Fish and Seafood Licensing Regulation. (Nov 2016). Available at: http://www.bclaws.ca/civix/document/id/loo101/loo101/261_2016
- British Columbia government. Seafood Industry Licensing. Available at: https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/fisheries-and-aquaculture/seafood-industry-licensing
- Ministry of Agriculture. Summary of 2015 Consultation Feedback Fish and Seafood Act's
 Regulations. (Nov 2015). Available at: https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/fisheries-and-aquaculture/seafood-safety/nov_2015_-consultation_document_summary.pdf
- British Columbia government. Licensing, Food Safety Standards and Reporting Requirements for the Seafood Industry in British Columbia: Consultation Paper. (Aug 2015). Available at: <a href="https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/fisheries-and-aquaculture/seafood-safety/fish and seafood industry consultation document september 1 2015.pdf
- Ministry of Agriculture. 2017 Seafood Licensing and Compliance Annual Report. (Jan 2018). Available
 at: <a href="https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/fisheries-and-aquaculture/seafood-safety/annual_report 2017 final_with_revised_title_for_posting_to_internet.pdf
- Sirocco Consulting. BC food processors to comply with new HACCP-based food safety regulations. (Jan 2016). Available at: https://www.siroccoconsulting.com/bc-food-processors-to-comply-with-new-haccp-based-food-safety-regulations/

8 Hong Kong "Be the Smart Regulator Programme"

8.1 Summary of licensing scheme

Item	Description	
Name of program	"Be the Smart Regulator" Programme	
Jurisdiction	Hong Kong	
Overview	The "Be the Smart Regulator" Programme was launched in 2007, tasked with improving the customer-friendliness, efficiency and transparency of the government licensing system.	
	A four-pronged approach was adopted in achieving the above objectives: collection of quantitative and qualitative data for performance and cost measurement, enhanced management of licensing processes via introduction of new roles and IT systems within licensing agencies, strengthened communication with the private sector via business liaison groups, and a Business Impact Assessment framework for evaluating the introduction of new regulations.	
	This whole-of-government initiative is an ongoing process, with progress reports published every four months.	
Regulatory body	Economic Analysis and Business Facilitation Unit of the Financial Secretary's Office, liaising with 29 other government departments	
Best practice features	The programme encouraged a shift in culture towards a performance-based, customer-centric licensing regime. Licensing agencies now spend more time on educating stakeholders and ensuring compliance instead of processing applications. This enabled government licensing to incur less costs for application processing and be more business friendly.	
	A key tool to enable the transition is the increasing use of IT tools, which allow for low-cost, timely distribution of information to a wide audience. This allows for efficient and effective communication of licensing requirements, as well as updates on the status of licensing applications.	
Evidence of benefits due to licensing scheme	Progress reports are published by the Business Facilitation Advisory Committee once every four months to highlight the changes that have been made to achieve the programme objectives, including stakeholder consultation exercises, reform of licensing requirements, and streamlined processes. The reports also cite Hong Kong's favourable position in the annual World Bank's Doing Business Report (consistently within the top five).	

Item	Description
	Since 2007, licensing reforms include an online portal for liquor licensing, relaxed fire safety requirements for modern digital projectors, expedited approvals for ad hoc theme park event marquees, and a web-based digital map to coordinate road works by utility companies.

8.2 Purpose of program

The aim of the whole-of-government effort was to streamline licensing processes and reduce compliance costs for businesses, without compromising public interest. To that end, the three main thrusts were to improve the customer friendliness, efficiency and transparency of the government licensing system.

8.3 Development of program

In late 2006, the 'Economic Analysis and Business Facilitation Unit' and the 'Efficiency Unit' of the Hong Kong Government co-organised a series of focus group meetings with operators of select business sectors to canvass their views on the local licensing system. The cross-sector consultation identified the following areas for improvement:

- Administration of the licensing process
 - speed up processing times
 - strengthen the coordination of various departments involved in the licensing process
 - improve the transparency of the licensing process
 - provide clearer, more comprehensive and open information on licensing requirements

Communication

- improve communication between applicants and departments that process licence applications
- Regulations and licensing requirements
 - remove over-stringent, outdated or unnecessary regulations and licensing requirements
 - critically assess the regulatory impact and compliance costs to the business community and involve businesses early in the drawing up of new regulation or new licensing proposals

An efficient licensing regime is important for Hong Kong, as Hong Kong seeks to maintain its reputation as a business-friendly city, and its role as a major economic hub in Asia.

8.4 Operation of program

The "Be the Smart Regulator" Programme was launched in 2007, and tasked with improving business licensing. The programme involved a total of 29 bureaus and departments, and advocated a shift in culture towards being a performance-based, customer centric licensing regime.

To that end, a four-pronged approach was adopted:

- Performance and cost measurement
 - Data was collected on the performance of licensing processes (e.g. processing time, rejection /rework rates). Surveys were also conducted to obtain business feedback and to estimate compliance costs.
- Enhanced management of licensing processes via:
 - A case officer for each department, who will receive customer service training to ensure a customer-centric mindset, and will proactively facilitate licence applications
 - A business facilitation officer, initially deployed by the 'Efficiency Unit,' to help departments improve their licensing processes (licensing authorities are also encouraged to assign dedicated personnel to perform this role)
 - The establishment of an inter-departmental application tracking system to monitor the processing status for each application.
- Strengthened communication
 - Business liaison groups (comprising representatives from regulators and businesses) were established to improve communication between licensing authorities and businesses, as were performance targets for each regulator. A review of existing licensing guides was introduced.
- Regulatory assessment and review
 - A Business Impact Assessment framework was developed to evaluate the impact of new regulations in order to avoid the introduction of unreasonable regulatory or licensing requirements, as well as to modify or remove current requirements deemed inappropriate.

The programme is coordinated by the government funded Economic Analysis and Business Facilitation Unit. The Unit is actively involved in facilitating discussions between the participating bureaus and departments to share ideas and experiences on good regulatory practices, and between the licensing authorities and businesses on how to improve licensing frameworks.

Furthermore, roughly every four months, a progress report on the Programme is published on the Hong Kong government's website, detailing major progress in various departments, highlighting recent business impact assessments conducted, and publicising consultation and sharing sessions relevant to business licensing.

8.5 Best practice features

Registering and licensing activities are efficient

Licensing authorities assess and approve applications for licences, as a precursor to entities performing the relevant activities. This aspect of regulatory administration is primarily a service delivery function. Thus, the focus should be on delivering a timely, accurate and reliable service in the most efficient manner possible. Having efficient registering and licensing activities minimises costs, for both regulators and businesses. Such costs to business include monetary fees, time spent on licence applications and other administrative impediments when applying for licences.

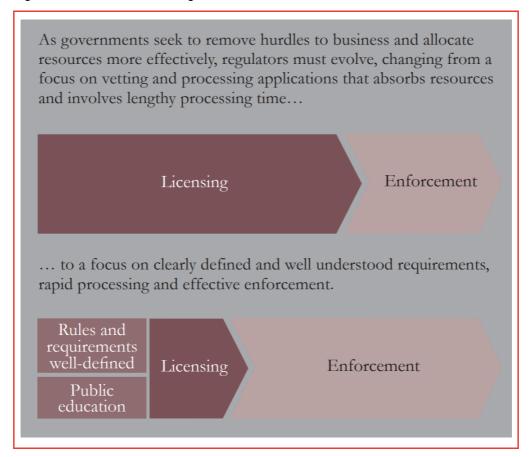
In line with delivering higher service quality, Hong Kong's "Be the Smart Regulator" programme set out to improve the efficiency and customer-friendliness of the government licensing system. The programme introduced several changes to help achieve these aims, including the collection and monitoring of performance data, case officers to bring a customer-centric mindset in facilitating licence applications, and business liaison groups for major business sectors that are heavily involved in licensing.

Figure 2 below shows how the focus of Hong Kong's regulators is expected to evolve over time, to be more performance-based and business-friendly. Eventually, the Government's goal is to reduce effort spent by the regulator on processing licence applications, redirecting resources towards public education and effective enforcement of licensing.

Referring to Figure 2 below, rules and requirements (together with guidance) are to be made readily available through the Internet, fax, service counters, etc; public education is conducted via consultation with a broad range of stakeholders and online publishing of consultation papers; and licensing applications are to be made more efficient by the increased use of IT systems. This frees up resources to enforce licensing regulations, focusing on the areas of highest risk. It also clarifies licensing requirements for businesses, reduces licence processing times, and increases compliance with licence requirements. As a result, licensing is made more efficient for regulators, and involves less hassle for businesses.

Progress reports from 2017 and 2018 suggest that the shift in focus is ongoing, with regular staff training on the importance of business facilitation, discussion groups between participating bureaus and departments on best practice licensing principles, and publishing of success stories to encourage continued progress.

Figure 2: Evolution of licensing



Source: Economic Analysis and Business Facilitation Unit, Financial Secretary's Office. Be the smart regulator. Available at: https://www.gov.hk/en/theme/bf/pdf/BTSRPamphlet.pdf

IT systems aid in communication of licensing requirements and status of licensing applications

A major cost in the administration of a licensing regime is in the communication of licensing requirements and status of licensing applications. Indeed, effective and efficient communication to stakeholders can often be more effective than compliance and enforcement activities. For example, non-compliance may occur due to ignorance of the requirements, rather than an intentional breach. Similarly, if businesses are well informed of application status, they may make better business planning decisions. Information should also be accessible and timely. The increasing use of IT is a great enabler of communication to a wide audience at low-cost, and in a timely manner.

To enable the culture change illustrated in Figure 2, the Be the Smart Regulator programme increased public education via online publishing of licensing requirements. Between 2007 and 2011, seven major departments set up online application systems, including the Environmental Protection Department for

chemical and clinical waste disposal permits in 2011, and the Food and Environmental Hygiene Department for liquor licences in 2010.

Such changes decrease costs significantly for regulators and businesses in the transfer of information, which in turn allows the regulator to redirect scarce resources towards enforcement and compliance – activities that are still largely resistant to IT solutions. The increasing use of IT systems also reduces complexity of information flows, reduces the time required for information dissemination, and increases the accuracy of information provided.

8.6 Evidence of benefits due to licensing scheme

Progress reports are published by the Business Facilitation Advisory Committee once every four months to highlight the changes that have been made to achieve the programme objectives, including stakeholder consultation exercises, reform of licensing requirements, and streamlined processes. The reports also cite Hong Kong's favourable position in the annual World Bank's Doing Business Report (consistently within the top five).

An internal review of the programme three years after inception highlighted key deliverables, including:

- 10 business liaison groups for major business sectors were set up to facilitate communication between government departments and businesses regarding licensing and regulatory issues
- a business consultation e-platform under the GovHK portal was developed to facilitate public access to consultation information
- promotion of business facilitation and customer centric culture within the civil service via departmental training programmes, induction seminars and servicewide experience sharing sessions
- nine government departments conducted customer satisfaction surveys to incorporate feedback and enhance business licensing services

Since 2007, the programme has led to a multitude of licensing changes in many industries, including:

- In 2017, all liquor licensing and related applications were made available online, reducing turnaround time while allowing applicants to more conveniently understand the licence requirements and licence application procedure
- In 2015, cinemas using a modern digital projector will now be covered by relaxed projector room fire safety requirement, as opposed to traditional film projection equipment that has to be housed in a room with strict fire resistance ratings. This updating of licensing requirements allows for minimisation of mandatory requirements, to take into account technological changes.

- In 2010, based on discussions by the Business Liaison Group for theme park operators, the Buildings Department adopted a new approval procedure for standard marquees erected for ad hoc / seasonal events, reducing the time spent on acquiring the required licences for these ad hoc / seasonal events. This allows theme park operators to be agile in rolling out ad hoc attractions.
- Prior to 2010, the Highways Department began to provide web-based digital maps with information of approved road works, implement an online application system for excavation permits, and issue timely alerts of non-compliant performance with photographic evidence via an online portal. This helped coordinate road works by utility companies to reduce traffic problems, while reducing permit application turnaround times.

Sources:

- 1. GovHK. About the Smart Regulator Programme. Available at: https://www.gov.hk/en/theme/bf/smart/
- Economic Analysis and Business Facilitation Unit, Financial Secretary's Office. Be the smart regulator. Available at: https://www.gov.hk/en/theme/bf/pdf/BTSRPamphlet.pdf
- GovHK. Review of "Be the Smart Regulator Programme". Available at: https://www.gov.hk/en/theme/bf/smart/review/
- GovHK. Progress Reports from 2007 to 2017. Available at: https://www.gov.hk/en/theme/bf/smart/report/
- 5. GovHK. Success Stories. Available at: https://www.gov.hk/en/theme/bf/highlights/
- The World Bank. Doing Business 2010. (2009). Available at: http://www.doingbusiness.org/~/media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB10-FullReport.pdf

9 UK childcare and security

9.1 Summary of licensing schemes

Item	Description	Description	
Name of licences	Registration under the Early Years register	Security Industry Authority licence	
Jurisdiction	United Kingdom	United Kingdom	
Overview	In response to media pressure critical of the cost and quality of childcare services, the <i>Childcare Act 2006</i> was enacted. The Act introduced licensing for nursery workers, requiring registration, training and a criminal records check. The primary aim of the licensing scheme is to improve the quality of childcare services in the UK.	In response to high profile assaults by private security workers on other individuals, the <i>Private Security Industry Act</i> 2001 was enacted, requiring the licensing and monitoring of private security workers. The licensing scheme aims to reduce criminality within the sector, and prevent future assaults by licensed workers, enhancing the reputation of the industry.	
Regulatory body	Office for Standards in Education, Children's Services and Skills (Ofsted)	Security industry authority	
	Licence design was tailored to the individual industry, given the same aim of improving service quality. While specialised knowledge is required for both industries, the level of training required is different.		
Best practice features	For childcare, given the range and complexity of skills covered in these training courses, they typically require a one-year full time commitment.		
	In contrast, in the private security sector, a relatively short training duration of 21 contact hours was required, reflecting the smaller range and lower complexity of skills that are covered, as well as the nature of the work involved.		
Evidence of benefits due to licensing scheme	Indicators of quality (behaviour of children, nursery caring behaviour, nursery leadership and management, learning standards, quality of provision) exhibited an improvement one to two years prior to the introduction of licensing, suggesting significant anticipation effects, where	After controlling for several other variables, there remained a significant effect of the license on reducing the crime incidence rate at licensed premises. While licensing did not adversely impact overall employment levels – while licensing may have deterred those with a criminal record, but may have	

Item	Description	Description
	childcare providers work to improve the quality of service prior to the licence requirements being introduced.	simultaneously expanded the pool of potential employees due to its improved image and reputation.

9.2 Early Years register

9.2.1 Purpose of licensing scheme

The licensing scheme's principle objective is to ensure high quality provision of childcare services with a highly skilled workforce, as legislated in the *Childcare Act* 2006.

9.2.2 Development of licensing scheme

Prior to the introduction of the *Childcare Act 2006*, nursery school workers were subject to an accreditation scheme. In 2004, the UK Treasury published a strategy paper entitled 'Choice for Parents, the Best Start for Children: A Ten-Year Strategy for Childcare' which outlined several market failures associated with the existing childcare system. This included:

- information asymmetry parents are often poorly equipped to evaluate the quality of childcare services
- equity access to good quality childcare can improve upward mobility for poor families, bringing significant long-term social and economic benefits for a wide population

In response to this paper, as well as the growing media pressure about the quality of childcare services available in the UK, the government reformed the regulatory arrangements to introduce a licensing framework for nursery school workers to ensure a minimum level of quality for childcare service providers.

9.2.3 Operation of licensing scheme

The licensing framework introduced by the *Childcare Act 2006* requires registration of nursery workers under the Early Years register, attendance at mandatory training courses, and a criminal records check.

The training course is provided by accredited trainers, and typically takes a year of full-time commitment. The cost of the course varies between different providers, but is at most GBP9,000. It covers the following core units:

- develop and promote positive relationships
- develop and maintain a healthy, safe and secure environment for children

- o promote children's development
- reflect on and develop practice
- o protect and promote children's rights

Nursery workers must pay a registration fee of GBP200 upon application for the licence (which is valid for one year), and again upon licence renewal. There is no requirement to undertake additional training for each year's licence renewal.

A sample (approximately 10 per cent) of childcare service providers are inspected each year by the regulator (Office for Standards in Education, Children's Services and Skills). If there are reasonable grounds to believe the continued provision of childcare by the registered person may expose children to a risk of harm, the childcare provider may be removed from the register. If this occurs, the individual in question cannot legally work in early years childcare. If extreme cases of malpractice occur, the case can be passed over to social services and the police, and prison sentences may be applicable.

9.3 Security Industry Authority licence

9.3.1 Purpose of licensing scheme

The main aims of the Security Industry Authority licensing scheme are to:

- raise standards of companies and individuals working within the industry
- oprovide standards of conduct and training for individuals in the industry
- monitor the activities and performance of those working within the industry

9.3.2 Development of licensing scheme

Prior to the introduction of the *Private Security Industry Act 2001*, security workers were subject to an accreditation program. In the 1990s, a spate of attacks by private security works at their place of work (that is, doormen in restaurants and bars) on other individuals brought into question the capacity of the existing framework in maintaining the quality of security personnel.

In response to this, the *Private Security Industry Act 2001* set up the Security Industry Authority, whose role include licensing, monitoring of licensed workers, and to set standards of conduct and training for private security works. The purpose of the Act is to reduce criminality within the security industry, and prevent similar assaults in the future. A clear priority has been to enhance the respect for and reputation of the security industry.

9.3.3 Operation of licensing scheme

Under the *Private Security Industry Act 2001*, individuals must hold and maintain a licence to operate as a private security guard in the UK. The licence requirements include that the individual must be aged 18 years or over, attend a training course (generally lasting at least 21 contact hours) and pass an exam, and pass criminality checks set by the Security Industry Authority.

Each type of licence (i.e. Cash and Valuables in Transit, Close Protection, Door Supervisor, CCTV, Security Guarding, Vehicle Immobiliser, Key Holder) requires individuals to complete two modules: one is a general module relating to working in the private security industry, while the other is specific to the activity that will be undertaken by the individual (such as, working as a CCTV operative).

Individuals must pay a licence fee of GBP220 on application for the licence (this does not include the cost of attending and completing an accredited course). Once granted, licences are generally valid for an average period of three years, at the end of which, applicants must pay the application fee again. No additional training is required for licence renewal; however, a criminality check may be repeated at the discretion of the licensing authority.

To avoid revocation or suspension of licence, security workers must not receive a conviction for a relevant offence (e.g. for violent or abusive behaviour, espionage or terrorism, use or sale of offensive weapons, firearms offences etc). The licensee must also comply with other requirements, including that the licence must not be stolen, or defaced. Front line workers must also wear their licence at all times in a visible manner. Working in a licensable security role, or supplying private security staff without a relevant licence will incur penalties (including fines and/or imprisonment).

9.4 Best practice features

Licence design must be tailored to the individual industry

Prior to the introduction of licensing, the childcare and private security sectors had been subject to accreditation schemes. In each case, these schemes had contributed to concerns regarding the service quality in each industry, driven principally from accreditation being provided to individuals that did not possess the requisite level of education and training.

The Childcare Act 2006 and Private Security Industry Act 2001 reformed the regulatory arrangements applying to each respective industry to introduce licensing in place of accreditation. The impetus for this change was the same – that is, to increase the service quality of individuals employed in these sectors by requiring them to undergo a greater degree of education and training. In high-risk occupations that require specialised knowledge, training is imperative to ensure that individuals who

work in the sector are sufficiently knowledgeable and well-practiced to execute their jobs effectively.

However, the precise nature of the resulting licence conditions that were applied to the childcare and private security sector varied, based on the particularities of the industry in question, and the specific objectives that the government was trying to address.

For childcare, the lack of standardised training led to a disparity in the level of skills between different nursery workers. In response, the licensing framework stipulates the specific types of training (i.e. the 'core units' set out above) that each applicant must undertake to be licensed. Relevant training courses are provided by trainers accredited by the UK Office for Standards in Education, Children's Services and Skills. Specification of the type of training that nursery workers must undertake, and government accreditation of trainers that provide this, ensures consistency in maintaining the requisite level of skills and education for workers in the industry. Given the range and complexity of skills covered in these training courses, they typically require a one-year full time commitment.

In contrast, in the private security sector, the most significant issues were caused by high levels of violence in the industry. In response, the licensing framework placed greater emphasis on recurring criminal checks for security guards, restricting the granting of licences to individuals with a clean record.

Training is also a critical component of the scheme, with individuals required to undertake a minimum of 21 contact hours. The short nature of this course (vis-à-vis the training that a childcare worker must undertake) reflects the smaller range and lower complexity of skills that are covered, as well as the nature of the work involved. For instance, it is arguable that childcare workers are subject to a higher duty of care than security guards since they work with vulnerable children, which attracts commensurately higher levels of education and training.

9.5 Evidence of benefits due to licensing scheme

A 2015 European Commission study into the effects of occupational licensing in the UK found that quality of service in both industries improved post-licensing.

For childcare workers, five indicators were used as measures of service quality, that is, behaviour of children, nursery caring behaviour, nursery leadership and management, learning standards, and quality of provision. All indicators of quality exhibited improvement one to two years prior to the introduction of licensing. The authors suggest that this is due to significant anticipation effects, where childcare providers work to improve the quality of service prior to the licence requirements being introduced. The report found that quality indicators continued to improve post-licensing.

For private security workers, service quality was measured using the incidence of crime occurring in licensed premises such as bars, clubs and working men's clubs. After controlling for several other variables, the study found that the licence had helped to reduce the incidence rate of crime in these premises. Furthermore, it was found that licensing had not adversely impacted overall employment levels. The authors note that this may be because licensing involving a criminality check changed the composition of the workforce – that is, licensing may have deterred those with a criminal record, but may simultaneously expand the pool of potential employees due to its improved image and reputation.

Sources:

- European Commission. The Effects of Occupational Licensing on Employment, Skills and Quality: A
 Case Study of Two Occupations in the UK, p.8-10 & p.37-39. (Oct 2015). Available at:
 http://ec.europa.eu/DocsRoom/documents/13364/attachments/1/translations/en/renditions/native
- UK Department of Education. Post-legislative assessments of the Education and Inspections Act 2006, Childcare Act 2006 and Children and Adoption Act 2006, p.63. (Dec 2011). Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/177035/CM_8204.pdf
- HM Treasury. Choice for parents, the best for children: a ten year strategy for childcare, p. 1. (Dec 2004). Available at: http://news.bbc.co.uk/nol/shared/bsp/hi/pdfs/02_12_04_%20pbr04childcare_480.pdf
- Ofsted. Regulation of services on Childcare Register from March 2017. (Oct 2017). Available at: <a href="https://www.gov.uk/government/publications/framework-for-the-regulation-of-provision-on-the-childcare-register/regulation-and-inspection-framework-for-services-on-the-childcare-register
- Ofsted. Early years and childcare registration handbook. (Oct 2017). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/65
 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/65
 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/65
 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/65
 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/65
 <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/s
- Security Industry Authority. Information for Applicants. Available at: https://www.sia.homeoffice.gov.uk/Pages/licensing-security-guarding.aspx
- Security Industry Authority. Revocation / Suspension of a Licence. Available at: https://www.sia.homeoffice.gov.uk/Pages/enforcement-revocation.aspx
- 8. Security Industry Authority. Get Licensed SIA licensing criteria. (Mar 2018). Available at: https://www.sia.homeoffice.gov.uk/Documents/licensing/sia_get_licensed.pdf

10 Poland deregulation of occupational licensing

10.1 Summary of licensing deregulation

Item	Description	
Name of initiative	Repeal and rationalisation of occupational licensing schemes	
Jurisdiction	Poland	
Overview	From 2011-2015, Poland undertook a whole-of-government effort to rationalise occupational licensing, in an effort to boost employment, enhance competition in regulated industries, and reduce regulatory costs for licensed occupations. Each minister was in charge of reviewing the regulation of professions within the scope of their competencies. The ministers were then asked to specify the public interest secured by the existing regulations and to give their opinion on the proportionality of those regulations. From a high of ~300 licensed professions, ~250 licences were eventually either rationalised or eliminated altogether.	
Regulatory body	Various ministries	
Best practice features	Unnecessary licensing requirements were removed to facilitate a well-functioning market.	
	A whole-of-government effort was required to bring about such change. The multitude and variety of occupational licenses involved made it necessary to involve a large group of decision makers. The respective cabinet ministers were deemed to be sufficiently well-informed, neutral and accountable to decide which licenses to rationalise.	
Evidence of benefits due to licensing scheme	A study by the Warsaw School of Economics in 2016, covering 22 occupations including lawyers, taxi drivers, sports instructors, real estate agents etc, showed that the rationalisation of occupational licensing lowered the level of unemployment (from 9% in 2014 to 6% 2016), increased the number of firms in affected industries, and reduced prices without a significant impact on quality.	

10.2 Purpose of licensing deregulation

The purpose of widespread deregulation of occupational licensing in Poland between 2011 and 2015 was to:

- Increase employment, especially for young people and women wishing to return to the workforce after maternity leave
 - Pre-reform, the Prime Minister's Office estimated that deregulating ~250 occupational licences would increase employment by 15-20% for the above target groups
- Reduce prices and increase quality of services by reducing barriers to entry, in turn promoting competition, in regulated industries
- Reduce regulatory costs associated with licensing occupations (eg: registry maintenance, remuneration for examination boards, application processing time)

10.3 Development of licensing deregulation

Between 1991 and 2005, the Polish unemployment rate ranged between 9.5% and 20%, which was significantly higher than in their Western European neighbours where unemployment rates were mostly between 5% to 10%.

In 2011, a Ministry of Science and Higher Education survey concluded that Poland had the highest number of regulated professions and activities among EU Member States with around 300 professions, accounting for almost half a million workers. Survey responses indicated that many restrictions were considered unnecessary, leading to higher prices, inefficient job-worker matching, lower quality, and reduced employment levels. The survey recommended that reducing the restrictions—i.e. lowering educational requirements, shortening certificate periods and experience, or lifting some prior checks—would help improve access to these professions, particularly for the young and other less advantaged groups.

The reform of regulated professions, announced by Prime Minister Donald Tusk in November 2011, became one of the priorities for the cabinet in the parliamentary term 2011-2015. The main goal of the reform was to facilitate the access of interested candidates (especially young candidates and mothers after returning from maternity leave) to regulated activities. It was expected that employment and the flexibility of the workforce would increase, whereas the prices of services rendered in the regulated occupations would fall. This would mean a drop in the earnings (economic rent) of their representatives but, on the other hand, also higher accessibility to these services (e.g. for the poor or Small and Medium Enterprises). It was also argued that attracting the workforce back to deregulated services would help increase earnings in the non-regulated professions, which suffered from an oversupply of candidates who were discouraged by barriers to the regulated occupations.

10.4 Operation of licensing deregulation

Poland's constitution allows for limits on freedom of economic activity given important public reasons (Article 22), such as the protection of state security, public order, the natural environment, health, public morals, or the freedom and rights of other persons.

Initially, all cabinet ministers were asked to review the regulations of the professions within the scope of their competencies. The ministers were asked to specify the public interest secured by the existing regulations and to give their opinion on the proportionality of those regulations. Based on the review results, 250 professions and specialties, which accounted for the employment of almost half a million professionals (3% of the labour force), were selected for further analytical and legislative work. Due to its complexity, the reform was divided into three legislative parts (tranches).

The first tranche affected 51 professions in 2014, including those of advocate, legal adviser, public notary, bailiff, physical protection worker, technical protection worker, real estate agent, real estate manager, taxi driver, tourist guide, tour leader, trainer, and sports instructor.

The second tranche affected 87 professions in 2014, including those of civil engineer, architect, urban planner, certified bookkeeper, tax adviser, statutory auditor, insurance broker, insurance agent, diagnostics technician (inspector) at a vehicle control station, and railway occupations. The choice of these professions was determined by, among other things, the restrictiveness of the regulation, social expectations, the maturity of analysis about the occupations in the ministries and by the direct impact on the labour market.

The third tranche affected 93 professions in 2015, including those of patent attorney, certified geologist, mining professions, fire protection professions, investment advisor, securities broker, investment company agent, commodity exchange broker, sworn translator, conservators, and museum professionals.

For each tranche, the government held public hearings on the proposed changes, and conducted six-month consultations with the public and each of the ministries affected.

10.5 Best practice features

Unnecessary licensing requirements are removed to facilitate a well-functioning market

Determining the necessity of occupational licensing requires an assessment of whether the benefits of licensing outweigh the costs of the licensing regime.

Invariably, occupational licensing presents additional costs to potential entrants. In adverse cases, overly onerous licensing schemes serve as significant barriers to entry, protecting the incumbents from market competition while imposing unnecessary costs on outsiders (licensing costs for potential entrants, and higher prices for customers). Such behaviour is an example of rent seeking, where benefits accrue to one party without any true wealth creation. Benefits are simply transferred from outsiders (potential entrants and customers) to incumbents. In cases of rent seeking through excessive occupational licensing, licensing schemes without significant benefits to society should be rationalised or even abolished.

As of 2011, Poland had the most number of licensed occupations (\sim 300) out of all EU member states, suggesting that some of them may have been unnecessary. Examples include:

- real estate agents the previous framework required real estate agents to be licenced, and licence requirements included holding a specialist postgraduate degree, and undertaking a six-month apprenticeship. In contrast, real estate agents are not regulated in many other countries, including the UK, Germany, Spain, and the Czech Republic. Consistent with the experience in these other countries, and to encourage higher number of agents and reduce agent fees, the reform removed the requirement for real estate agents to hold licences.
- booking the previous framework required bookkeepers to be licenced, and licence requirements included passing an examination, payment of a regular renewal fee, and purchase of civil liability insurance. This imposed duplicate requirements since bookkeeping was already regulated under other legislation, including tax law and insurance law. As a result, the licence requirement was removed from the profession.

The government found that costs associated with excessive occupational licensing were tangible, and included high unemployment for youths and women seeking to return to the workforce after maternity leave. In an effort to boost employment, enhance competition in regulated industries, and reduce regulatory costs for licensed occupations, the government sought to remove unnecessary licences.

A whole-of-government effort was made to evaluate the need for specific occupational licensing

Given the multitude and variety of occupational licenses, deregulating occupational licensing is a resource-intensive exercise, involving many separate decision makers. Ideally, decision makers would be well-informed (to make sensible decisions), neutral (to make the right decisions) and accountable (to bear the consequences of decisions).

Poland's licensing deregulation received widespread support from the government and opposition parties. Each cabinet minister was asked to conduct six-month consultations with the public, evaluate the need for occupational licensing within their respective departments, and provide their opinion on whether the regulations were proportionate to the need for them. Ministers were deemed to be best placed to make these decisions, because they would be sufficiently well-informed, neutral and accountable. This would prevent adverse reform outcomes such as impractical changes, reforms that overly benefit professionals without regard for potential market failures, and a lack of ownership by decision makers.

This review identified 300 professions that would benefit from further analysis and review. Given the size of this task, the reform was broken up into three tranches. This allowed more time for public consultations and government discussions, thereby providing greater opportunity for robust analysis and consideration for the many licences in each tranche. Furthermore, tranches allow for prioritisation of reforms, based on the restrictiveness of current licensing requirements, social expectations, the maturity of analysis for each occupation, and the expected impact on the labour market.

As a result, hundreds of specific occupational licenses were evaluated individually, leading to an en masse deregulation of occupational licensing in Poland, and the liberalisation of the private sector, which in turn contributed to better employment, competition and price outcomes.

10.6 Evidence of benefits due to licensing scheme

A study by the Warsaw School of Economics in 2016, covering 22 occupations including lawyers, taxi drivers, sports instructors, real estate agents etc, showed that the rationalisation of occupational licensing lowered the level of unemployment (which reduced from 9% to 6% between 2014 and 2016), increased the number of firms in affected industries, and reduced prices without a significant impact on quality.

For instance, the study found that:

- between 2009 and 2014, the share of notaries under the age of 34 grew from 7% to 20%, signifying a large increase in the employment of youths as notaries post-reform
- between 2011 and 2015, the price of taxis decreased slightly post-deregulation (due to greater competition from higher numbers), with seemingly no decrease in the quality of service (measured by the number of withdrawals of licences, complaints and cases of malpractice)
- between 2014 and 2015, employment of private security workers increased, stopping a downward trend in the number of security workers observed since

2011, and thereby addressing concerns of security agencies which had notified the government about a shortage of workers

This supported the general hypothesis that occupational licensing facilitates rent seeking behaviour by incumbents, as licenses act as an artificial barrier to entry.

Sources:

- Karlik. Polish labour market a summary of 25 years of socio-economic reforms on the road from centrally planned economy to the first decade of the European Union membership (1989-2015). (Dec 2015). Available at: http://www.jois.eu/files/18_Karlik.pdf
- The World Bank. Program document on a proposed loan in the amount of Euro 700 million. (Apr 2014). Available at: http://documents.worldbank.org/curated/en/834661468147304441/text/869500PGD0P146010Box385226B00OUO090.txt
- Ministry of Justice. Deregulating access to professions in Poland. (2013). Available at: http://ec.europa.eu/internal_market/conferences/2013/0617-access-professions/docs/presentation-rojek_en.pdf
- Kleiner. Reforming Occupational Licensing Policies. (Mar 2015). Available at: https://www.brookings.edu/wp-content/uploads/2016/06/THP_KleinerDiscPaper_final.pdf
- Warsaw School of Economics. The effects of reforms liberalising professional requirements in Poland. (Sep 2016). Available at: http://ec.europa.eu/DocsRoom/documents/20883/attachments/1/translations/en/renditions/native
- The Prime Minister's Officer. Deregulation concerning access to certain professions. (Mar 2012). Available at: https://www.premier.gov.pl/en/news/news/deregulation-concerning-access-to-certain-professions.html
- The World Bank. Unemployment. Available at: https://data.worldbank.org/indicator/SL.UEM.TOTL.NE.ZS?end=2016&locations=PL&start=2000
- Lexology. Deregulation of real estate related professions in Poland. (Mar 2012). Available at: https://www.lexology.com/library/detail.aspx?g=a4e000a2-c228-49b1-83d4-ac17e2b0c6e1
- 9. Financial Times. Poland: the race to cut red tape. (Mar 2012). Available at: https://www.ft.com/content/0f88d819-1959-3748-8fed-4d7834daf2bc

Frontier Economics Pty Ltd in Australia is a member of the Frontier Economics network, and consists of companies based in Australia (Melbourne, Sydney & Brisbane) and Singapore. Our sister company, Frontier Economics Ltd, operates in Europe (Brussels, Cologne, Dublin, London & Madrid). The companies are independently owned, and legal commitments entered into by any one company do not impose any obligations on other companies in the network. All views expressed in this document are the views of Frontier Economics Pty Ltd.

Disclaimer

None of Frontier Economics Pty Ltd (including the directors and employees) make any representation or warranty as to the accuracy or completeness of this report. Nor shall they have any liability (whether arising from negligence or otherwise) for any representations (express or implied) or information

contained in, or for any omissions from, the report or any written or oral communications transmitted

in the course of the project.