Assessment and recommendations

Ireland's Environmental Protection Agency (EPA) was established in 1993 as a public regulatory body with administrative and technical independence to protect and improve Ireland's environment. Over time the EPA's responsibilities have expanded beyond those originally set out in its founding statute – the Environmental Protection Agency Act, 1992 – in step with new regulations, EU directives and following the merger with the Radiological Protection Institute of Ireland in 2014.

The EPA has established itself as a trusted and respected body for environmental and radiological protection that is recognised for its scientific integrity. It has been given responsibility for regulating an increasing number of areas on account of its reputation to deliver and it operates with a strong culture of independence. EPA data and reports are the reference for knowledge on Ireland's environment and the EPA is seen as an authoritative voice on environmental issues. It networks effectively at the European level, where it has gained a reputation as an innovative, open organisation with many good practices to share.

The EPA operates in a challenging space. It is responsible for implementing environmental and radiological legislation from national and EU levels that is complex and fragmented. The EPA is under the aegis of two government departments and has been building a relationship with a new parent department since 2016. It must also co-ordinate with numerous public bodies operating in the field of environmental protection or related areas, with limited formal co-ordination structures.

This is in many ways a pivotal moment for the EPA. Pressures on the EPA's functions are increasing as economic activity in Ireland picks up. At the same time, public interest in and media scrutiny of environmental issues, in particular the response to climate change, are growing. A new whole-of-government Climate Action Plan (June 2019) seeks to fundamentally change the way Ireland tackles the climate emergency.

Within this context, the EPA must make important strategic decisions about its future role and objectives: does it focus on maintaining its identity as a technical agency, producing highly regarded environmental data and policing compliance, or does it want to further evolve towards a more central space, moving beyond compliance to become a lead agency in encouraging better environmental performance across sectors? Addressing this question will be vital to ensure that the EPA remains relevant in a rapidly changing environmental landscape and provides an opportunity to become a driving force in protecting and improving Ireland's natural environment. It also has many implications for the governance of the EPA.

Role and objectives

Mandate and functions

The EPA has an expansive mandate to "protect and improve Ireland's environment" that has evolved organically over the years following changes in environmental policy and legislative

frameworks in Ireland. The EPA's responsibilities have expanded beyond those originally set out in its founding statute in step with new regulations, EU directives and following the merger with the Radiological Protection Institute of Ireland in 2014. Today EPA's licensing, permitting and enforcement activities cover waste, wastewater, industrial emissions (emissions to air, water and land, generation of waste, noise), greenhouse gases, contained use and controlled release of genetically modified organisms (GMOs), sources of ionising radiation, and volatile organic compounds (VOCs). Its monitoring, analysing and reporting functions span a broader range of environmental areas. These include air quality, water quality (rivers, lakes, bathing water, drinking water…), radiation levels, biodiversity, species and habitats (reporting functions only), greenhouse gases, waste generation and management, and land and soil. These changes have taken place incrementally over the years, resulting in a broad mandate.

The EPA reports on the state of the environment from a holistic perspective, yet its regulatory responsibilities primarily concern emissions and discharges, a distinction that is not always clear to all stakeholders. The EPA is entrusted with a wide range of monitoring and reporting responsibilities (fulfilled, for example, by the publication of the State of the Environment report). Its responsibilities for licensing, enforcement and collecting data from/monitoring regulated entities are much narrower, focusing on activities by particular actors in a given area (for example, waste disposal by large operators but not smaller waste operators, which come under the supervision of local authorities). Its regulatory responsibilities do not cover all environmental policy areas. For example, biodiversity is under the remit of the National Parks and Wildlife Service under the Ministry of Culture, Heritage and the Gaeltacht. This creates challenges that the agency must overcome to define and project a clear corporate identity that is understood by all stakeholders.

The EPA strategic plan for 2016-2020 clearly defines the organisation's three overarching functions as "regulation", "knowledge" and "advocacy", but in practice they are fragmented across the EPA in a manner that may hinder consistency. Licensing, inspections and enforcement form the core of the EPA's regulatory activities. Its knowledge functions include monitoring and reporting on a wide range of environmental outcomes and co-ordinating and funding a significant research programme to advance knowledge on environmental protection. Its advocacy work aims to drive more environmentally-friendly behaviour by citizens, consumers and businesses. In practice, these functions are fragmented across teams and locations, with scope to provide a clearer narrative of goals and resources and consolidate approaches. This is illustrated in how the EPA presents its work in corporate documents, which list ten areas of responsibilities but appears to mix functions (e.g. licensing) with sectors (e.g. water).

The EPA has been innovative within its regulatory powers to achieve its institutional objectives. Legislation provides the EPA with enforcement powers to inspect, investigate and prosecute. The EPA mostly relies on criminal law in its sanctioning activities, with some administrative sanction powers in specific areas. The reliance on criminal law means that cases have to be brought to a criminal standard of proof. This is an administratively heavy process for an outcome that often results in a small fine from the courts, as environmental penalties are capped at relatively low levels in legislation. To overcome these constraints, the EPA has developed innovative tools and funded research and programmes aimed at applying behavioural insights (BI) to improve environmental outcomes. This includes multiple programmes under the National Waste Prevention Programme to reduce waste, the National Dialogue on Climate Action, raising awareness about radon, and improving enforcement through the National Priority Sites, which "names and shames" industrial and waste licensed sites that have recorded poor environmental performance, in order to prompt behaviour change.

The EPA does not set government policy but draws on its substantial data, evidence and scientific expertise to inform the policy making process through a number of channels. The EPA makes formal submissions on draft legislation put out for public consultation; presents to committees of parliament on a wide range of topics that then informs debate and discussion. The EPA is often called upon to respond to informal requests from government departments on the development of policy and draft legislation, particularly where technical or scientific input is required. The EPA is a highly respected body that is

recognised for its scientific rigour, high quality data and expertise on the environment nationally and at the European level. This expertise is a very valuable contribution to policymakers and stakeholders at large.

The policy context is changing and the EPA needs to take a strategic decision concerning its future direction. Building on its well established position as an authority on the environment, there could be opportunities for the EPA to provide further evidence-based advice to support the national policy making process. In the rapidly developing environmental policy space this is a significant opportunity for the EPA and it is urgent that it proactively defines its identity, particularly at this critical juncture as Ireland operationalises the all-of-government Climate Action Plan released in June 2019. There are potentially important responsibilities stemming from the plan that the EPA is well-placed to lead on. However, if the EPA is unwilling or unable to be closely engaged in the process it risks being overlooked, undermining its relevance. This moment presents an opportunity for the organisation to define its role in the policy space also with regard to other areas of its work such as waste. The EPA Board needs to take a strategic decision on the direction in which it wishes to take the organisation in this changing context.

Currently, advice or input into policy development tends to rely on the strength of relationships with the relevant government policymakers rather on formal or public structures. The EPA Act empowers the EPA to advise the government "of its own volition" on environmental protection and related matters and it appears more could be made of this opportunity without conflicting with the EPA's independence. This function encompasses giving advice to the government on any proposals for legislative change or other policy matters, as well as reporting and making recommendations on particular environmental issues or problems. More generally, there also seems to be demand from other stakeholders for the EPA to be more proactive and vocal on environmental issues, in particular on the response to climate change, while recognising that decision-making responsibility for policy rests with the government

The forthcoming strategic plan for the period from 2021 is an opportunity for the EPA to re-examine its role and objectives in light of these developments. The EPA operates in the framework of five-year strategic plans, the latest of which (*Our Environment, Our Wellbeing* 2016-2020) was developed and revised in an open and collaborative process internally and externally for consultation. The EPA could continue this good practice for the next plan.

The EPA's performance of its fundamental functions could be strengthened by an improved website. The EPA website has the potential to be a vital tool for fulfilling the EPA's core functions as a knowledge provider, environmental advocate and regulator but is widely acknowledged to not be fit-for-purpose in its current form. It contains a large amount of information but is often hard to navigate and many links are broken. Links and documents related to EPA processes and outputs of interest for stakeholders are partly on display, while others, such as calls for public consultation, are located in hard-to-find places (Box 1).

Box 1. Redesigning the web presence of the Norwegian Environment Agency

The Norwegian Environment Agency owned several websites and domains that it had to keep up to date. The large number of sites resulted in numerous problems: confused users; redundant content on several sites; competition between its sites on search engine rankings; a low number of unique visitors across the sites; inconsistent messaging that made its branding less visible; and difficulty in keeping the same content up to date across the different sites.

The agency therefore decided to consolidate its sites and services in order to maintain its content in a much more manageable way that would support its brand. Nine websites and five administrative information systems with editorial content were consolidated into one website with the user task in focus:

The Environment Agency now focuses on optimising individual landing pages for users who use search engines, with less emphasis given to navigation from the home page. The Environment Agency uses web analytics and software services (e.g. Google Analytics, Siteimprove) to help improve the website with content, search engine optimisation, analytics, accessibility and data privacy.

Result

Target audiences

When navigating to the website, the first thing the user sees is three entrance points for different target audiences: private individuals, businesses and authorities. These entrances are task oriented, complete with guides that helps users to solve a specific task.

- Private individuals refers to tasks such as "How to buy a fishing licence";
- Businesses refers to tasks such as "How to apply for a discharge permit";
- Authorities refers to tasks such as "How to manage outdoor recreation areas".

These guides were previously PDF files. On the new site, these huge documents are now interactive step-by-step guides that further help the Environmental Agency's digitisation process. These documents are now easier to maintain and update through the content management system (CMS). An example of a digital step-by-step guide (in Norwegian) is available here: https://www.miljodirektoratet.no/ansvarsomrader/klima/klimakvoter/klimakvoteregisteret/slik-bruker-du-klimakvoteregisteret/

Areas of activity

The website displays eight areas of activity of the Environment Agency. In these eight categories users can find everything that the organisation does and says but that is not a specific task. The categories are based partly on the agency's organisational structure and partly on the results of a large survey that was carried out with people from within and outside the organisation. This ensured that the labels given to each area of activity correspond to what most users think and expect. Getting to know what users expect to find was an important part of the process in which the Environment Agency invested much effort. It also conducted interviews with relevant real-life users for every guide or area that was revised or digitalised, gleaning valuable information each time.

Miljøstatus – "State of the Environment"

There is a module for the State of the Environment in Norway. This is sourced from a subdomain that was previously a stand-alone website managed by the agency. This is one of the nine websites that was consolidated into one. By creating subdomains of previously stand-alone sites, they can be managed through the same CMS, making updating and avoiding redundant content more efficient, simple and manageable.

News and events

Users can also find news and events from the Norwegian Environment Agency on the homepage. While these are important for the agency, the user statistics show that they are less important than the tasks that users come to the website to perform, so the news and events section is located lower down on the front page.

Source: Information provided by the Norwegian Environment Agency, 2019.

Recommendations

- **Define** the EPA's role and strategy in the changing policy context.

  o While the EPA should maintain and build on its strong technical focus and existing deliverables, the improvement in the economy and the introduction of far-reaching environmental policy through the Climate Action Plan requires a well thought through strategic response from the EPA. The organisation must maintain its policy relevance and ensure that the EPA remains a relevant, centrally involved and strong evidence-based voice for the environment in this new policy landscape.

  o The climate action plan is redefining actors' roles and functions. The plan provides a great opportunity to build the EPA role (for example, the consolidation and enhanced utilisation in EPA of inventories and projections).

  o If the decision is made to take a more proactive role in providing input to policy development, ensure this is done in a transparent manner. While the responsibility for policy making ultimately rests with government, there may be an opportunity for the EPA to engage more proactively in policy development and evaluation of policy impact on the ground, leveraging its considerable expertise and networks.

  o The EPA must also ensure that the data and information that they put forward are relevant to the policy debate. Research products should be reviewed to continue to maintain quality but also offer a "fast-track" option for heightened policy relevance.

- **Clearly communicate** the EPA identity of who they are and what they do to the general public, regulated entities, industry associations and civil society groups.

- **Differentiate** between roles and resources targeted on advocacy, advice and guidance. The role of an environmental protection agency is distinct from that of an environmental NGO. If the EPA is to provide evidence-based advice to the government on policy, this should be done in a predictable and transparent manner and respond to a clear expectation from the executive. If its advocacy functions are to focus on consumer and citizen behaviour change, this should be clearly stated, as advocacy is one of three overarching functions in the strategic framework. Guidance is a third distinct area that focuses on supporting regulated entities to achieve compliance with regulations.

- **Fulfil** the function of a knowledge provider with more effective and outward communications. The EPA has identified many of the steps it needs to take in its communications strategy, and should focus on implementing the priority actions therein. Among the most important is a significant overhaul of the website and other communications tools to ensure accessibility to data and information. This could be informed by "user journey" research and behaviourally-informed techniques to understand how and why users access the site, as well as what to make most prominent.

Relations with the executive and institutional co-ordination

A recent change in parent department to the Department of Communications, Climate Action and Environment (DCCAE) and reallocation of functions between government departments has been a disruptive time for both the EPA and the executive. DCCAE has been the EPA's parent department since 2016. Prior to this, the EPA had been under the aegis of the Department of the Environment, Community and Local Government (now re-named the Department for Housing, Planning and Local Government, DHPLG) with which it had developed long-standing relationships. While time may resolve some of these issues, in the immediate term it is important to ensure clarity around expectations on both sides: what DCCAE expects of the EPA, and what the EPA can potentially offer to support DCCAE in its work. The need for clarity around expectations is made more urgent in the context of defining roles and responsibilities in the implementation of the Climate Action Plan.

Further complexity in relations with the executive is introduced through the division of EPA portfolios between two departments. While DCCAE is the EPA's parent department, DHPLG has responsibility for water policy, and so the EPA retains an important relationship with its former parent Department in this policy area. The three parties occasionally meet at a senior level and mechanisms have been put in place to try to clarify and manage relations between the EPA and the two departments: a tripartite Oversight Agreement and associated Performance Delivery Agreement (PDA) is in place and both departments establish key performance indicators (KPIs) for the EPA to monitor its performance. However, the PDA is fairly generic and does not appear to result in open and meaningful dialogue between the parties, mainly reiterating the EPA's legislative obligations and listing the reports it is expected to publish.

The EPA is able to co-ordinate with a large number of public bodies mostly thanks to personal relationships, in the absence of over-arching formal co-ordination frameworks. Some relationships are defined through formal co-ordination mechanisms, such as MOUs or structures introduced through legislation. However, given the size of the administration, personal connections between staff in government departments and public bodies are common and seem to greatly facilitate communication and co-ordination where they exist.

An increasing number of actors are active in the field of environmental protection and policy, creating a risk of overlapping mandates. For example, the recent establishment of the Climate Change Advisory Council (CCAC), whose secretariat is provided by the EPA but which is an independent public body, may create overlapping responsibilities. The new Climate Action Plan will also redefine roles and responsibilities, including that of the CCAC, raising the need for the EPA to be actively involved in discussions around its operationalisation.

The administrative network for co-ordination between the EPA and Ireland's 31 local authorities appears to be operating well, and is seen as an innovative model among European countries. Local authorities have significant environmental protection responsibilities in Ireland, and the EPA has a supervisory role under Section 63 of the EPA Act 1992 and at the same time has a statutory role to provide advice and assistance. Since 2004, the EPA and local authorities have operated the Network for Ireland's Environmental Compliance and Enforcement (NIECE), which provides the framework for both oversight and support. The network seems to be working well and is an example of good practice. There nevertheless remains an inherent tension in the relationship between the EPA and local authorities due to the EPA's dual role as regulator of local authorities and provider of advice and assistance.

The EPA co-ordinates effectively at the European level and is a highly respected partner. The EPA Director-General is the current Chair of the European Environment Agency (EEA) Management Board, and the EPA is active in EEA activities at a technical level. The EPA actively participates and networks effectively in other European fora, for example, in expert groups of the European Commission.

Recommendations

- **Discuss, agree and align** expectations and relations with parent departments. The EPA needs to proactively rebuild bridges following the reform. Clarity is needed on all sides about the parents departments' expectations of the EPA and what the EPA can potentially offer to support the executive, in particular in the context of the operationalisation of the Climate Action Plan. A rejuvenated PDA could be used as a way to catalyse these discussions. The PDA could, for example, identify key contact persons in the EPA and the departments for each area of work and how often they should meet. If it is judged that the PDA is not the correct tool, the EPA must explore other avenues to clarify expectations and improve the relationship Box 2.
- **Advocate** for more structured co-ordination and transparent communication with other regulators and public agencies. There could be value in defining regular structured engagement between management, for example: using Memoranda of Understanding to define how frequently the heads

of agencies should meet, and establishing MoUs with important partners where they do not already exist. Such co-ordination with other major actors could help identify common objectives and align regulatory activity.

- **Communicate** to the public and stakeholder groups which organisations are responsible for which areas of environment protection. For example, by improving the prominence, accessibility and readability of the "who does what" for Ireland's environment explanation, jointly with the other actors involved. This could be presented in corporate documents, on the website in an easily accessible location, and in important publications such as the State of the Environment report.

Box 2. Building constructive relations with the executive, the case of Great Britain's energy regulator Ofgem

The British energy regulator, Ofgem, has consciously tried to develop ongoing relationships with government without compromising its independence or giving the impression that there is undue influence. This has meant that where there has been a divergence of views, relationships have already been developed so that there can be dialogue. Ofgem has also tried to avoid surprises for ministers and officials – learning from adverse past experience.

One recent example is a review of network charging. This involved removing payments to some parties and rebalancing charges and making them fixed. The overall amount of money to be recovered is fixed so any rebalancing inevitably involves some parties paying more and some paying less. This created the risk that the government would come under lobbying pressure by those who would pay more, including in this case, larger businesses and renewable energy organisations. The major beneficiaries were average consumers, who by their nature are not as vocal as stakeholder associations.

Ofgem used its relationship with officials to ensure there was understanding of the basis for its reforms and to try to ensure that briefings for ministers reflected this and the consequences of not introducing the reform. There was also clear understanding of the independence of the regulator and the need to reflect this in any correspondence from ministers.

Source: Information provided by Ofgem, 2019.

Input

Financial resources and their management

More than three-quarters of EPA income is obtained directly from government sources, including from an Environment Fund that is designed to diminish but that is used to cover non-discretionary expenses, raising concerns about financial sustainability and autonomy. These funds require yearly support from DCCAE and are approved by the Department for Public Expenditure and Reform (DPER). EPA has two main sources of funding coming directly from government (Table 1):

- Exchequer income: Represented EUR 42.3 million (65%) of the EPA budget in 2018, with EUR 35.3 million from DCCAE and EUR 7 million from DHPLG. Funds from DCCAE support the overall functioning of the EPA, including staff, whereas DHPLG funds are dedicated to delivering priorities related to the Water Framework Directive. DHPLG funds can only be spent on staff when provided proper sanction to do so. Research is also partly funded by exchequer income.

- The Environment Fund: Collected by the national government from a plastic bag levy and landfill levy, and allocated by DCCAE. The amount of funding assigned from the Environment Fund has been declining from EUR 16 million (27% of the EPA budget) in 2015 to EUR 9 million (13% of the EPA budget) in 2018 while exchequer income has risen. The EPA does not have autonomy in the allocation of the Fund and in each of the last three years it has signalled in the Estimates Letters its concern about the sustainability of using this fund for non-pay, non-discretionary expenditures (i.e. operational costs related to light, heat, rent, insurance, etc.). This has been accompanied with requests each year to move these expenditures off the Environment Fund. In 2019, EUR 1.4 million of the Fund was allocated to such expenditures, down from EUR 4.6 million in 2018. However, the Fund also provides resources to carry out other important EPA functions, such as the remaining portion of research and waste prevention activities, and was an important source of funding during the austerity period.

Table 1. EPA budget by category, real (millions EUR) and percentage of total income

	2015	2016	2017	2018
Total income	59.0	59.8	63.0	65.0
Exchequer income	26.9 (45.7%)	33.5 (56.1%)	39.9 (63.4%)	42.3 (65.0%)
Environmental Fund income	16.1 (27.3%)	12.8 (21.4%)	9.8 (15.5%)	9.0 (13.8%)
Earned income	13.3 (22.5%)	10.7 (18.0%)	10.8 (17.2%)	10.9 (16.7%)
Other income	2.6 (4.5%)	2.7 (4.6%)	2.5 (3.9%)	2.9 (4.5%)
Total STATE Income	43.1 (73.0%)	46.3 (77.5%)	49.7 (78.8%)	51.3 (78.8%)
Total EARNED & OTHER Income	15.9 (27.0%)	13.5 (22.5%)	13.3 (21.2%)	13.8 (21.2%)

Source: Information provided by the EPA, 2019.

The remaining EPA budget is from earned income from levies from licencing fees, radiological income and enforcement income some of which are not set on a cost recovery basis putting pressure on other sources of funding, especially given the acceleration of economic activity in the country. Licensing fees are defined in legislation and require an amendment by the Oireachtas (Parliament) to change. These fees have rarely been reviewed since the EPA was founded. Generally, these fees cover 10-15% of the cost of licensing. In addition, there is no legal provision to charge fees for some licensing and permitting activities such as Article 27 notifications, EPA-initiated licence reviews (both of which have increased significantly since 2016) and EPA-initiated technical amendments. Enforcement income, however, is calculated on a near-recovery basis that includes the cost of the activity (including staff time and overhead costs) and chargeable costs associated with the activity. For those enforcement activities where costs are not fully recovered, the relevant team is asked each year to outline how they propose to charge for their activities for the coming year.

The EPA has a robust system of financial reporting, which has been well-recognised by external partners. Expenditures against the budget are reported to the EPA Board on a monthly basis, and internal budgets are reviewed bi-annually. DCCAE is provided monthly updates, and the EPA produces Annual Financial Statements audited by the Comptroller and Auditor General (C&AG) of Ireland, who reports to the Public Accounts Committee (PAC). The EPA can be called before the PAC to report on how it managed its resources. This has only occurred three times since its establishment. The most recent testimony in April 2019 received praise from the Chair of the PAC noting EPA's excellence in preparing its annual reports.

Recommendations

- **Secure** the sustainability of the financing framework. Developing stronger relationships and improving communication with parent departments, including with DPER, will assist with delivering more sustainable financing. The EPA should continue to advocate for a review of licensing fees

set in legislation in order to better recover costs of activities and reflect the EPA's evolving role. The additional income could be used to fund improvements to the delivery of the licensing process. The increased financial autonomy could also strengthen the EPA's independence. In addition, the EPA needs to review the sustainability of financing coming from the Environment Fund, including planning ahead for alternative funding streams and continuing to advocate for allocating non-discretionary budgets to more stable budgetary streams.

- **Strengthen** co-ordination process with senior levels of DCCAE, DHPLG and DPER to raise, address and co-ordinate solutions to budget and human resource related issues.

- **Advocate** for stronger medium-term commitments to budgeting beyond the annual cycle, in line with the OECD Recommendation of the Council on Budgetary Governance. For example, the EPA could develop a fully-costed multi-year corporate plan, to be submitted and approved and then be subject to annual updates. This would allow the organisation to plan for expected budget availability.

Human resources and their management

As with all Irish public bodies, the EPA follows central government human resource frameworks and does not feel this impedes its ability to find and retain qualified candidates. The EPA is empowered to appoint staff subject to the numbers and grades sanctioned by DCCAE with the consent of DPER. Changes to the headcount require the approval of both bodies, which is usually only advocated for when new functions are added or there is growth in existing functions. Pay grades are similarly decided by central government rules. However, the EPA feels that it receives a large number of applications for each job posting allowing them to hire qualified candidates in most areas, with the exception being some posts in the Dublin Office due to higher costs of living, longer commute times and opportunities for other employment due to higher economic activity.

The EPA has developed an ambitious Human Resources Development (HRD) Strategic Framework and Action Plan 2017-2021 although it does not include measurable targets. The overarching theme for the HRD strategy is "Engaging, Enabling, Empowering" and it is supported by four strategic goals: foster a healthy, engaged, and resilient workforce; develop our people and organisational resources; empower our managers as experts and leaders; and evolve our HR delivery model. Each of the four goals is supported by four to five strategic priorities, as well as a high level outcome that the EPA intends to achieve by 2021, but these are not accompanied by measurable targets. Setting these targets provides an opportunity for the EPA to promote innovation and change management to ensure skills are fit-for-purpose as the role of the organisation evolves.

The EPA has workforce planning mechanisms that provide an opportunity for change as the organisation defines its future role. The EPA currently has 420 staff who are considered highly qualified in scientific and technical aspects by stakeholders. Around 70% of staff at the EPA are technical staff from engineering, science or specialised research backgrounds with the remaining considered administrative staff. The EPA does not currently have economists or lawyers on its staff. An annual workforce plan is prepared by HR in conjunction with directors; this plan also looks at options including outsourcing and contractors to deliver the required functions, which are highly concentrated in specialised areas such as ICT, chemicals, Pollutant Release and Transfer Register (PRTR) and legal services. As the EPA defines its future identity and role, the workforce plan will be a powerful mechanism to translate the new vision into the capacity to deliver on it.

The EPA uses a system of lateral mobility to develop skills and maintain internal flexibility, which has been seen as creating positive and – in some cases – negative results. In general, EPA staff are assigned to a position upon appointment but may be transferred to new assignments for organisational and/or development purposes. The EPA Performance Management and Development System (PMDS) is used in some cases to match positions to candidates for lateral mobility opportunities. Lateral mobility is

either initiated on a voluntary basis by the staff member or by management to broaden staff skills and re-deploy resources where needed. This system has been seen by staff as beneficial to development. In cases where moves are management-initiated, they may be perceived as top-down.

Recommendations

- **Align** skills with the mandate and strategic direction of the EPA. Whatever strategic direction the EPA decides to pursue, the skills of the organisation must follow suit. The EPA could conduct a foresight exercise on the types of skills and backgrounds likely to be needed and then make the business case for the creation of new specialties and teams to help position the organisation for future growth: for example, hiring appropriately qualified in-house legal resources given the context of an increasingly litigious environment; or policy professionals to advise the Board if it moves more into the policy space, etc.

- **Engage** regularly with DCCAE, DHPLG and DPER to ensure that the EPA has sufficient human resources in line with the assessment of the skills and posts needed for the organisation to deliver on its mandate.

- **Harness** the PMDS to ensure that the EPA's strategic objectives are reflected at all levels of the organisation. As well as identifying training needs, staff appraisals should be used to evaluate potential candidates to be the next generation of leaders of the organisation. Complementary systems could be used to provide opportunity to practise leadership skills and receive mentorship, such as the Management and Leadership Network (MLN) established under the new HRD strategy.

- **Ensure** the attractiveness of EPA as a modern employer. The HRD Strategy could be a potentially powerful tool in modernising HR practices within the EPA but it will be important that measurable targets are attached to the goals (Box 3). The EPA could also invest more time in communicating and gaining support from staff identified as candidates for management-initiated lateral moves. The EPA could consider new approaches in this area such as advertising such positions internally.

Box 3. Performance indicators for people management from the Treasury Board of Canada Secretariat

The Treasury Board of Canada Secretariat (TBS) introduced a people management methodology in 2017-18 in order to provide a portrait of the health of an organisation in terms of its management practices and performance with respect to people, structures, processes and well-being.

The key areas of assessment were:

1. *Workforce:* includes measures related to talent and performance management, learning and development, and official languages.

2. *Structures and processes:* provides a picture of how each organisation is structured (in terms of executive population, levels of executive reporting to direct managers, etc.). These measures also give an indication of how the organisation is designed and if the organisation works effectively to meet changing job demands while ensuring that jobs clearly reflect the work to be performed.

3. *Workplace culture:* includes measures on mental health and wellness, diversity and inclusion, and values and ethics.

The methodology defined indicators and their calculation methods matched with expected results (targets) for each area of assessment (Table 2). To the extent possible, and with a view to leveraging existing information, the indicators were aligned with the goal of a healthy and productive workforce.

Findings from existing employee surveys were incorporated into the analysis of results from central system data and requests from departments.

Table 2. Extract of the questionnaire on Workforce

Workforce

Outcome statement: A public service that enables new and existing public servants to be in the right place, at the right time, doing the right things.

Talent and performance management, learning & development

Outcome statement: A skilled and agile workforce that has the competencies and flexibility to meet the needs of an evolving public service.

Rationale: A world class public service equipped to meet the challenges of the 21st century requires continuous learning, training and professional development for employees and executives. An organisation's commitment to various ways of learning is the foundation of employee development and performance improvement.

Indicators and calculation method (where applicable)	Expected result
1. Percentage of employees that have documentation setting performance expectations/objectives. **Rationale:** To measure the extent to which departments and agencies meet the requirements of the TBS directive on Performance Management. **Calculation:** Number of employees who have documentation setting performance expectations (objectives) ÷ total number of employees × 100%. **Employee tenure:** Indeterminate and term employees of more than 3 months (non-Executives). **Employee status:** Active employees	Organisations should strive to have over 90% of employees with documentation setting performance objectives
2. Percentage of executives that have documentation setting performance expectations/objectives. Rationale: To measure the extent to which departments and agencies meet the requirements of the Directive on Performance Management Program for Executives. Calculation: Number of executives who have documentation setting performance expectations (objectives) ÷ total number of executives × 100%. Employee tenure: Indeterminate and term executives of more than 3 months. Employee status: Active executive employees	Organisations should strive to have 100% of executives that have documentation setting performance expectations/objectives.
3. Percentage of employees that have documentation setting learning objectives (learning and development plan). Rationale: To measure the extent to which departments and agencies meet the requirements of the TBS directive on Performance Management. Calculation: Number of employees who have documentation setting learning objectives (learning plan and development plan) ÷ total number of employees × 100% Employee tenure: Indeterminate and term employees of more than 3 months (non-executives) Employee status: Active employees	Organisations should strive to have over 90% of employees with documentation setting learning objectives.

For the full list of indicators, see
https://www.canada.ca/en/treasury-board-secretariat/services/management-accountability-framework/maf-methodologies/maf-2017-2018-people-management-methodology.html#question.

The results were intended to provide information to three key audiences:

- Deputy Heads, so that they could identify the strengths and potential risks in their organisations in relation to corporate commitments, such as talent management, diversity and inclusion, and well-being; and provide information to track and communicate progress on the Government of Canada's people management priorities.
- People Management Community, to measure the effectiveness of human resources services and identify areas of strong performance as well as gaps.
- The Treasury Board Secretariat, to enable policy centres to monitor trends and identify gaps across departments and enterprise-wide relating to government priorities; and support TBS program sectors and departments with evidence-based analysis on departmental initiatives.

Source: https://www.canada.ca/en/treasury-board-secretariat/services/management-accountability-framework/maf-methodologies/maf-2017-2018-people-management-methodology.html#question.

Process

Decision making and governance structure

The EPA is managed by a full-time Executive Board that must fulfil executive, management and strategic duties. The Board comprises the Director General and five directors, who are appointed by Government after an open competition. The Director General serves as Chair of the Board and operational chief executive of the EPA. Each director leads an Office (internal department of the EPA) and provides day-to-day oversight of the EPA. Legislatively, the Board has responsibility for the management of the EPA but it is empowered to delegate responsibility to staff for operational purposes. Currently twelve programme managers are delegated operational responsibility for carrying out the work of the EPA. The governance arrangements set out in the EPA's founding legislation take precedent over the Irish Government's *Code of Practice for the Governance of State Bodies 2016* (DPER, 2016[1]) which states that the role of Chairperson and CEO should not normally be combined, and that non-executive Board members should bring an independent judgement to bear on issues of strategy, performance, resources, key appointments and standards of conduct.

EPA leadership has implemented a number of measures in recent years to strengthen and diversify strategic decision-making; continuing these efforts is key in the current changing policy context. Most meetings of the Board are technical in nature (i.e. concerning complex licensing decisions, prosecutions), with one meeting per month dedicated to monitoring the delivery of the work programme, corporate governance and strategic matters. While the Board functions smoothly with regard to its executive functions, the current weekly schedule does not allow sufficient time and focus on strategic matters. Therefore, in addition to regular Board meetings, Board members and senior managers (a group of 18 people) meet at least six times a year to discuss the EPA's strategy and its implementation, although decision making remain at the Board level. To support this process, a series of external experts have been contracted to support the Director General on topics such as change management and organisational development. Guaranteeing sufficient resources for the steering of the EPA's strategic vision as well as strategic decision making will be essential for the organisation to navigate its way through a changing

policy context in Ireland where environmental issues and in particular climate change are rising up the political and public agendas.

The current governance arrangements and wide responsibilities of Board members highlight the importance of seeking diverse external perspectives to strengthen decision-making. The EPA Act sets out that the role of the Chair and CEO is occupied by one person and all Board members are part of the management team, which can lead to a lack of distance from EPA operational and technical matters. The lack of non-executive directors on the Board also limits the level of external input and challenge. Moreover, Board members have generally worked in the EPA for a number of years (currently an average of 16 years), which may run the risk of 'group think' and a lack of new perspectives. To mitigate against these risks, the EPA engages external expertise to support the Board functions, including financial, procurement, governance, legal, HR and communications; external experts can attend Board meetings. Various internal and external committees currently advise the Board and the scope for them to do so may be currently under-utilised. A current strength that could be further utilised is the Audit and Risk Committee (ARC) that consists of primarily external members and is externally chaired. The role of the ARC is to provide independent assurance to the Board on the effectiveness of the control environment, risk management and the internal audit function. The Chair of the ARC attends the Board of the EPA at least once per year and prepares an annual independent report which is presented to the Board.

The Advisory Committee also holds potential that could be further exploited. The Advisory Committee is empowered in legislation to make recommendations related to the functions of the EPA to the EPA and to the Minister, yet does not do so frequently. Standard practice has been for the Advisory Committee to draft a single report with recommendations at the end of its term. The role of the EPA Director General as Chair of the Advisory Committee, including setting meeting agendas in consultation with members also reduces its potential to leverage external perspectives. Large amounts of meeting time is given to presentations from EPA staff on various topics, rather than being used for discussion and comments.

Recommendations

- **Continue to strengthen** the strategic function of the Board. This could be done in a number of ways, such as:
  - isolating opportunities to discuss strategic matters, for example, holding a quarterly Board retreat dedicated to strategy (Box 4);
  - inviting external input at Board meetings to help bring innovative, 'blue sky' thinking to aid the Board in its strategic discussions;
  - consider creating a "strategic advisor" post to support the Director General/ Board.

Box 4. Business Planning and Strategic Oversight at Canadian Transportation Agency

Like many organisations, the Canadian Transportation Agency (CTA) has a senior-level group for the discussion of, and decisions regarding, management and administrative matters: its Executive Committee (EC), which includes the CTA's Chair and CEO, Vice Chair, and the heads of all branches. EC meets weekly, but the primary forum for the establishment of organisational plans and priorities is its quarterly, day-long retreats.

These retreats provide an opportunity for the senior executive team to step back from operational pressures, creating space for reflection and open conversations on:

- *Long-term trends, opportunities, and challenges:* identifying key trends and best practices in the external environment and significant issues in the organisation – based in part on thought-provoking presentations from expert staff and invited guests – and considering their implications for the delivery of the Agency's mandates;
- *Major project updates:* sharing information on major initiatives, to ensure transparency, accountability, the collective monitoring of progress, and early action in response to any challenges;
- *Organisational priorities and resource allocation:* determining areas of focus and investment, and re-aligning budgets as required to achieve results and mitigate workload pressures;
- *Talent management:* discussing options for addressing performance gaps and for developing and leveraging the competencies of exceptionally strong employees.

These retreats allow senior officials to think strategically about organisational directions and to respond to shifting demands and emerging issues – resulting in a strong sense of common purpose and highly effective, agile decision-making. Their outcomes are communicated to staff at branch-level meetings and through the Hub, the CTA's intranet site, and are implemented and tracked through planning documents, people management processes, and follow-up discussions at the EC table.

Source: Information provided by CTA, 2019.

- **Diversify** input into decision-making by continuing to find opportunities to bring in external perspectives, fresh ideas and constructive challenge. Strengthening the links between the Board and its external committees could be one way to achieve this.
- **Clarify** the role of the Advisory Committee and redesign meeting formats to produce greater value.
  - o Continue the practice of co-creating meeting agendas, looking for opportunities where the Advisory Committee's input could strengthen EPA performance, for example: giving comments on draft standards, guidelines and codes of practice, strategic plans, the research programme, and on potential EPA responses to wider policy developments (e.g. the release of government white papers, environment-related plans etc.) and environmental challenges.
  - o Redesigning the format of meetings to give more time for discussion and comments could provide much more value. For example, relevant documentation (presentations/reports/podcasts etc.) could be sent for members to consult in advance of each meeting, freeing up valuable time.
  - o The Committee's mandate to make recommendations to the EPA and to the Minister could be better fulfilled by changing the format of reporting. Rather than publishing a single report of recommendations at the end of its three-year term, the Advisory Committee could consider whether there would be value in issuing recommendations to the EPA Board and to the Minister following discussions on specific topics or issues as relevant. This potential could also serve to focus discussions.
- **Continue** efforts to increase transparency and visibility of Board and sub-committee meetings. For example, publish minutes on the website in an easily accessible location (excluding any information that could be commercially sensitive or confidential internal issues, e.g. human resources) (Box 5).

Box 5. Transparency at Mexico's National Hydrocarbons Commissions

Mexico's National Hydrocarbons Commission (Comisión Nacional de Hidrocarburos, CNH) implemented several initiatives to improve transparency inside the regulator.

First, CNH has been transparent in making information on its decision-making processes available, including publishing the minutes, resolutions and technical support documents of the governing council meetings on the CNH website, and the meetings are streamed live and archived on the Internet.

Second, in October 2016, the Natural Resource Governance Institute (NRGI) presented the report on "International Best Practices for Transparency in Contract Management: Recommendations to the National Hydrocarbons Commission of the Government of the United Mexican States" that reviews and evaluates the transparency of the CNH website.

Based on methodology presented in the report, the CNH created a transparency group made up of NGO representatives and academic institutions (full list can be found in (OECD, 2017[2]).The objective was to enhance participation and facilitate stakeholder monitoring that would allow incorporating and addressing their own concerns, information needs and recommendations to strengthen transparency in bidding processes, and contract management. The interaction with this group has allowed CNH to identify gaps in transparency matters and to carry out actions to improve processes and make relevant, clear and accessible information available to society.

As a result, CNH now ensures that information on the process of each bidding round is public and online on its revamped website—contracts, annexes, the name of companies involved at each stage of the bidding process. Progress in the bids can now be tracked by external parties. Contracts with foreign oil companies have also been made fully public, as have companies' investment plans.

In June 2018, the NRGI and the Open Contracting Partnership (OCP) published the report "Open Contracting for Oil, Gas and Mineral Rights: Shining a Light on Good Practice". The report studied 14 countries in which Mexico stands out in seven of the 16 best international practices of transparency in bidding processes and contract administration, thereby positioning CNH as a leading institution in this area.

CNH has strengthened its engagement and transparency commitment with regard to civil society and academia, by creating the Monitoring and Transparency Group and agreeing to comply to jointly agreed information requirements on Exploration and Extraction contracts, entitlements and compliance with exploration plans. CNH also participates in NRGI's initiative to evaluate Entitlements, Contracts and Implementation of the bidding process in terms of the Extractive Industries Transparency Initiative (EITI) standard or to develop Open Government Partnership (OGP) national action plans and in November 2018, CNH accepted EITI's invitation to lead the international network for contract transparency.

Furthermore, some of the functions of CNH are to collect, preserve, manage, analyse and update the information belonging to the Nation, obtained from survey and surface exploration activities, as well as hydrocarbons exploration and extraction activities, which are carried out through the National Hydrocarbons Information Center (CNIH). This centre manages an Internet platform with statistics, maps, data and reports for the public and is also subject to suggestions for improvement by the Monitoring and Transparency Group.

Source: (OECD, 2017[2]), Driving Performance at Mexico's National Hydrocarbons Commission, The Governance of Regulators, Paris, http://dx.doi.org/10.1787/9789264280748-en; OECD (2018), "Impact Update: Driving Performance of Mexico's Energy Regulators", OECD, Paris. http://www.oecd.org/gov/regulatory-policy/ner.htm and information provided by CNH, December 2019.

Internal organisation and management

Functions and subject areas are currently split between EPA Offices and locations, creating challenges in terms of efficiency, consistency of approach and messaging (Figure 1 and Table 3). Licensing functions are shared between the Office of Environmental Sustainability (OES) and the Office of Radiation Protection and Environmental Monitoring (ORM), which carries out licensing and enforcement functions for activities relating to radiation. Enforcement is shared between the Office of Environmental Enforcement (OEE), OES and ORM. This separation of functions between offices may lead to a disjointed approach. Work on certain themes is also dispersed across the EPA, for example, teams working on air quality are located in ORM and OEE, and climate change teams are in OES and the Office of Environmental Assessment (OEA). In many ways, the fragmentation that is characteristic of Ireland's environmental legislation is reflected in the EPA's own internal organisation. The responsibilities that have been given to the EPA over time have been assigned to different teams, leading to a mosaic of functions within each Office.

Figure 1. EPA organisational structure

Source: EPA website https://www.epa.ie/about/org/.
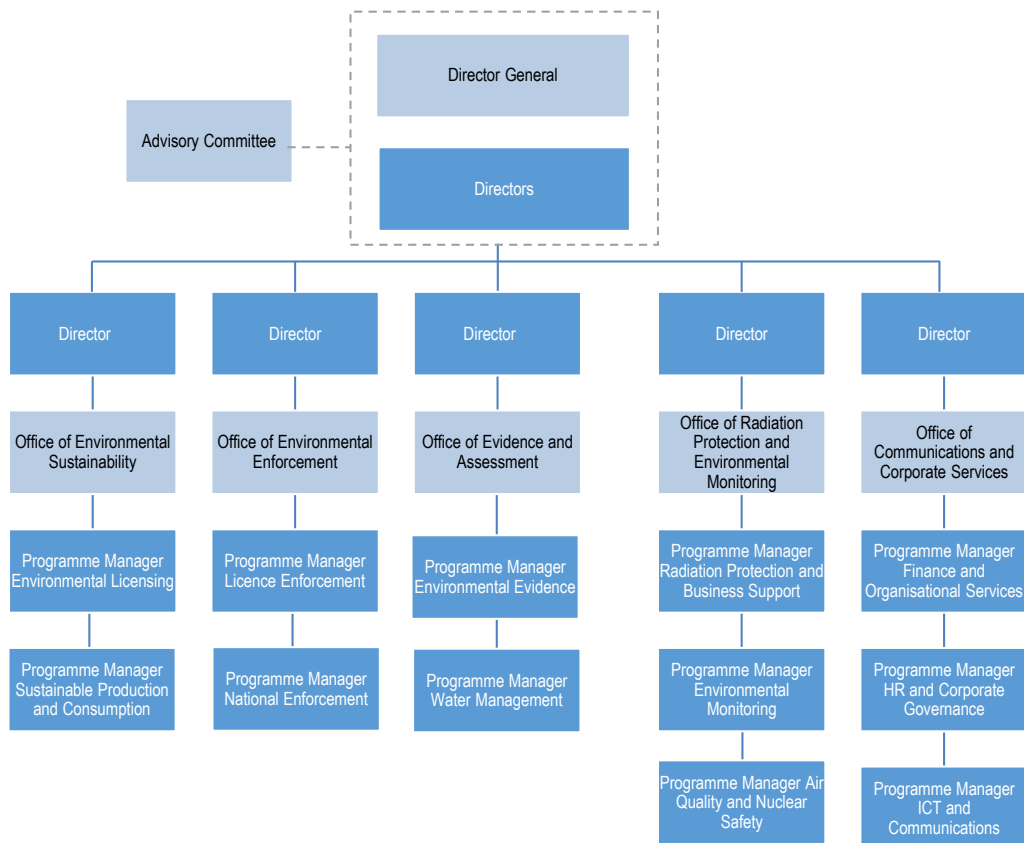
The EPA is a decentralised agency which supports proximity with regulated activities but may at times hinder efficiencies and effective internal and external communications. While the majority of staff are based in two main locations – the headquarters in Wexford (150 staff) and a regional inspectorate in Dublin (120) – the EPA is present in six other locations: four regional inspectorates in Castlebar (30), Cork (50), Kilkenny (20) and Monaghan (14) and two smaller offices in Athlone (2) and Limerick (2), with water testing laboratories in four of these locations. Regional inspectorates include staff from across several Offices. There appears to be a high degree of travel involved day-to-day, especially for senior

management, which hinders efficiency and increases the carbon footprint and environmental impact of the organisation, sitting at odds with the overall goals of the EPA. For specific functions, however, the regional presence can be an advantage for the EPA: for example, being close to licensees facilitates enforcement activities.

Structures put in place to improve internal communication and overcome the challenges posed by the regional structure show promise, but silos remain. A Senior Management Network (SMN) that brings together directors and programme managers across all offices is a significant development in the last three years that appears to be working well and is positively regarded by staff. An expert in culture and team effectiveness is engaged on an ongoing basis to work with the Director General, the Board and the SMN on team dynamics and performance, culture and corporate performance. Other initiatives include cross-office groups on specific topics and meetings of technical functions. Despite this, examples of good practice and innovative approaches developed by individual Offices seem to remain within their silos rather than being mainstreamed across the organisation; for example, on waste activities or policy submissions.

Table 3. EPA's five offices and their functions

	Functions	Themes
Office of Environmental Enforcement (OEE)	Enforcement Compliance promotion Inspections Monitoring Advisory (to local authorities) Produce guidelines	Air quality Waste Drinking water Wastewater VOCs Financial provision
Office of Environmental Sustainability (OES)	Licensing and permitting Enforcement Environmental impact assessments Compiling national data and reporting Advocacy and public information Applying behavioural insights National plans	Sustainable production and consumption, the circular economy and waste Climate change Air quality Waste Waste water VOCs GMOs Greenhouse gas emissions Peat extraction Chemicals
Office of Evidence and Assessment (OEA)	Strategic environmental assessments Monitoring Reporting (e.g. state of environment report) Data analytics (service to other offices) Advocacy and public information (public lectures series, specialised websites etc.) Co-ordinates research Climate services (e.g. Secretariat to CCAC) Water management, river basin management (WFD)	Water quality Hydrometrics Climate change
Office of Radiation Protection and Environmental Monitoring (ORM)	Radiological licensing and enforcement Product certification Monitoring (air quality, radiation levels in water, soil and food), modelling and forecasting Laboratory services Advice and public information (radon, non-ionising radiation) Advocacy (e.g. citizen science) Emergency preparedness plans Radiation research	Radiation Nuclear safety Environmental emergencies Air quality Radon Non-ionising radiation + "Clean air, clean water, sustainability" (themes of the citizen science initiative)

	Functions	Themes
Office of Communications and Corporate Services (OCCS)	Corporate functions (Human resources Corporate governance ICT and communications Finance Organisational services)	Cross-cutting

A heightened focus on internal control and risk management has been placed on all State bodies, and the EPA is in the process of improving its system for evaluating risks. In accordance with *Code of Practice for the Governance of State* Bodies, the EPA Board is responsible for ensuring that effective systems of internal control are instituted and implemented. Updates to the Code in 2016 placed a heightened focus on risk management and requires all State bodies to have an Audit and Risk Committee (previously the Audit Committee). In 2017, the EPA commissioned an independent external gap analysis of EPA compliance against the Code. The evaluation identified that "the Agency has already made commendable efforts in complying with the provisions in the revised 2016 Code". The EPA audits its compliance and control four to five times per year, and its compliance record is considered very high. The Executive Risk Committee (ERC) is responsible for further internal control through a Corporate Risk Register that is currently being updated to identify a more focused list of risks (12 as opposed to 33) and consider the likelihood and impact of risks, which the previous version did not. While this is a considerable improvement, the register could further benefit from being directly linked to the EPA's organisational strategy.

The EPA invests significant time and resources in carrying out internal reviews, but the extent to which the output from reviews contributes to organisational improvements is less clear. The EPA has undertaken 17 reviews in the last 10 years, some of which have been in response to requirements in the Code of Practice 2016. It is not clear whether the EPA uses the results of reviews to continually improve performance. For example, actions from previous reviews have not all been accepted and delivered.

Recommendations

- **Streamline** the internal structure for efficiency and cohesiveness gains. The EPA could benefit from taking stock of the distribution of functions across Offices with the goal of bringing together functions that are currently dispersed. In particular, there is a strong case for centralising enforcement functions into one Office. There also seems to be scope and appetite to bring together work on thematic areas that are currently divided between Offices, notably the work on climate change. A process redesign could be the first step on the way to a new organigram, to ensure uniformity and standardisation of processes.

- **Continue to review and assess** the efficiency of the EPA's regional structures. The EPA's multi-site operation warrants ongoing review and, where possible, roles should be brought together as closely as possible. While regional presence can be a strength for certain functions (e.g. enforcement), in other cases the current set up could be assessed. For example, an update of the previous reviews of the business case for the regional laboratory structure may be worth considering (Box 6).

- **Link** the corporate risk register more directly to organisational strategy. The more focused list of corporate risks, using an approach that considers the likelihood and impact of risk, is a significant improvement on the previous version.

- **Use** reviews as learning opportunities to continually improve performance. This will require continuing efforts to foster an organisational culture that is more open to change. Previous reviews could be revisited and assessed independently to see whether they still have relevance and how they should be taken forward. Priority can be given to reviews according to risk.

> **Box 6. Water quality testing in Portugal**
>
> Portugal's Water and Waste Services Regulatory Authority (ERSAR) approves and supervises the water quality testing programmes (PCQA) for all water suppliers, as required by legislation (Portuguese legislation based on the transposition of the Drinking Water Directive 98/83/EC).
>
> As stipulated in the PCQA, water suppliers are responsible for monitoring water quality in their supply zones and must choose a laboratory that has been approved by ERSAR to carry out the analyses.
>
> By law, ERSAR is the supervisory body for laboratories responsible for the quality testing of water intended for human consumption. For that purpose, ERSAR assesses the credentials of the laboratories and publishes a list of accredited laboratories from which water suppliers must choose. ERSAR does not operate any laboratories itself.
>
> Source: Information provided by ERSAR.

Regulatory processes

The EPA demonstrates independence in its regulatory functions. Licensing and enforcement decisions appear well insulated from external interference and the EPA takes pride in its technical independence, bolstered by provisions within the EPA Act that make it an offence to try to influence improperly any employee of the EPA or its advisory committees. EPA leadership also highly value and guard the independence of their regulatory decision-making.

Licensing and permitting

Licensing and permitting are conducted through a transparent but detailed process, which is considered by the European Environmental Bureau as ranking (along with Norway) the best in Europe (EEB, 2017[3])**. There may be room to further streamline the process without impacting rigour.** Licences and permits are granted by the EPA across a range of sectors (Table 4). The process involves a transparent online portal where applications are received, submissions and related information are made available to the public. Both the public and the prospective licence holder can also submit comments at various stages of the process. The licence and permitting process takes on average 1.5 years to complete, while the EPA seeks to bring this down to nine months.

Table 4. Responsibilities for licensing/permitting and enforcement at the EPA

Category	Licensing/permitting responsibility	Enforcement responsibility
Waste facilities	OES	OEE
Large-scale industrial activities	OES	OEE
CO_2 emissions trading	OES	OES
Intensive agriculture	OES	OEE
Air quality	Registration with EPA	Local authorities
Genetically Modified Organisms (GMOs)	OES	OES
Drinking water by public water suppliers	n/a	OEE
Waste water discharges	OES	OEE
Dumping at sea	OES	OEE
Sources of ionising radiation	ORM	ORM
Large petrol storage facilities	OES	OEE

Category	Licensing/permitting responsibility	Enforcement responsibility
Local Authorities	n/a	OEE
Waste Electrical and Electronic Equipment (WEEE)	OES	OES
Chemicals	OES	OES
Volatile Organic Compounds (VOC) Permits	OES	OEE

Notes: OES = Office of Environmental Sustainability; OEE = Office of Environmental Enforcement; ORM = Office of Radiation Protection and Environmental Monitoring.

There appears to be little flexibility to increase resources for certain licensing when the workload increases as a result of new categories of licence being introduced, when updates to existing licences are required, or as the economy expands. For example, the EPA makes revisions to all affected licences when new Best Available Techniques (BATs) for licences are confirmed. BATs seek to use the most effective and advanced activity and method of operation to achieve a high level of protection for the environment. While the requirement to review and revise licences when new BATs are confirmed is an excellent practice, it can cause a significant pressure and delay in the licensing process if adequate resources are not allocated. Looking forward, a new Water Framework Directive requirement is anticipated for licensing large water abstractions. Estimates forecast that this will require 800 new licences, representing a substantial volume of work for the EPA. To meet this demand, the EPA requested and received sanction for nine additional posts that cover hydrometric, water abstraction licences and reviews of wastewater licences. Requests for additional posts for other licensing areas have not been sanctioned. Stakeholders strongly advocate for more pathways and faster revision processes, especially for new directives.

Inspections and enforcement

The EPA is responsible for inspections and enforcement activities for the licences and permits that it grants but in some sectors, such as waste, there is fragmentation of enforcement responsibilities in the state. Overall, the EPA is responsible for inspecting and enforcing approximately 830 industrial and waste licences. In the waste sector, the EPA is responsible for large-scale waste facilities. Permitting, inspections and enforcement for smaller waste facilities are under the responsibility of local authorities. The EPA has a dual role with regards to local authorities. On the one hand, they are responsible for supervising the enforcement actions of local authorities. On the other, the EPA is responsible through the NIECE network for supporting the co-ordination of a consistent and effective approach to the enforcement of environmental legislation by local authorities and others in Ireland.

The overall inspections and enforcement strategy is compliance-focused and takes into consideration risk, but more can be done to improve this approach by further focus on outcomes. The EPA is finalising a Compliance and Enforcement Policy that establishes high level policy goals, which has been approved by the Board and set for implementation in 2020. This policy is in line with the OECD Best Practice Principles on Enforcement and Inspections. The EPA collects, assesses and reports on the number of non-compliances, new compliance investigations opened, incidents, number of site visits conducted, number and amount of prosecutions, and complaints received from citizens. These are then used to inform and prioritise enforcement action. In some cases, priority actions lists are used to promote compliance, such as the Remedial Action List (RAL) that seeks to increase investment to improve public drinking water. Using numerical rather than outcome measures to decide and report on inspections and enforcement is generally not in alignment with principles of responsive regulation and can provide perverse incentives that lead to more inspections and enforcement actions than is often optimal and for offences that are proportionally less risky. By focusing on outcomes, through a risk-based approach, the EPA can better utilise its range of enforcement tools to encourage compliance (Figure 2).

Figure 2. Types of EPA enforcement actions

Source: 2017 EPA Industrial and Waste Licensing Enforcement report
https://www.epa.ie/pubs/reports/enforcement/EPA_Industrial_Waste_LE_Report2017.pdf.

The EPA possesses a variety of sanctioning powers intended to achieve compliance, which, if used consistently in line with a risk-based approach, should ensure efficient enforcement. The EPA has a variety of compliance and enforcement tools, ranging from advice and guidance to suspension or revocations of licences, which are in line with OECD Best Practice Principles for Enforcement and Inspections. The EPA can use prosecution, but fines are capped and may be too low to induce real behaviour change. The EPA should ensure that its existing range of sanctioning powers are employed in alignment with a risk-based approach to avoid the risk of launching compliance investigations on infractions that are of low risk to the environment.

The National Priority Sites (NPS) system is an innovative system to promote compliance through behavioural change and could be further strengthened. The National Priority Sites is a list of the worst environmental offenders, which attempts to "name and shame" sites into compliance. The list is updated quarterly based on data collected over the previous six months and has been initially successful: a review of companies on the list in 2017 showed that 14 companies stayed on the list one out of four quarters and only one site was listed for all four quarters. Rankings are decided according to a combination of four enforcement factors: complaints, incidents, compliance investigations and non-compliances with the licence. While some of these factors are based on risk or outcome measures, other factors could be susceptible to biases in perception, such as complaints that can account for up to 20 of the 31 points necessary to be on the NPS list when tied to a medium or high compliance investigation. This opens the possibility for perverse incentives for some to "game the system" by artificially inflating scores with potentially erroneous complaints that could result in a large impact on a regulated entity's overall score. The NPS system was reviewed in 2019, with amendments to the ranking formula approved by the Board in September 2019 for implementation in 2020. This includes reducing the weight of complaints in the overall score from 30 to 20. While not removing the risk of gaming entirely, it helps to minimise some of its effects. Continuing to review the system with a focus on ensuring robust verification procedures are in place can help safeguard this innovative system.

The EPA engages in a number of networks aimed at sharing information but operational co-ordination on enforcement and inspection activities is less systematic. The EPA participates in networks aimed at sharing information about enforcement, such as the Network for Ireland's Environmental Compliance and Enforcement (NIECE), the National Waste Enforcement Steering Committee and Waste Enforcement Regional Lead Authorities. It also liaises with a number of state bodies with responsibility for inspections that overlap with the EPA. On occasion, co-ordinated site visits are planned. However, this is not systematically organised.

Stakeholder engagement

The EPA should seek to improve its two-way communication with citizens and stakeholders to enhance trust in its regulatory processes. The EPA has a strong internal commitment to adhering to the Aarhus Convention, including engaging stakeholders in evaluating licence applications and developing new guidelines and processes. For guidelines, the EPA decides on the nature of the consultation process depending on the significance of the guidance. However, it is unclear what defines this threshold. It is important that citizens and regulated entities receive feedback regarding their comments, especially in cases where a comment has not been taken on board.

Avenues for general consultation are not always apparent, and efforts could be made to promote more systematic early stage consultation. The EPA draws on several avenues for stakeholder consultation. The EPA engages with a number of networks, which include state, local business and NGO actors. One of which is the Irish Environment Network (IEN) composed of environmental NGOs, which the EPA meets with on a biannual basis. Six external committees exist, including the Advisory Committee that meets most often. While these committees are periodically used to receive advice, they could be used more systematically when developing new guidelines and codes of practice. Furthermore, the consultation portal for general consultations on the EPA website is located in a difficult-to-find location, which may result in fewer responses.

Recommendations

- **Seek** and implement opportunities to streamline the licensing process to drive down the processing time to the organisational goal of nine months. This can include:
    - Explore the scope to standardise licensing to help address resource issues in this area, for example, making greater use of standardised templates. The EPA could also evaluate whether elements of licences can become 'approved by default' pending a full evaluation by a future inspection to further speed up approvals processes.
    - Invest in making licensing as transparent as possible by making guidance on as many commonly required elements for licences publicly available, and rewarding adherence with this guidance to speed up processing times. Consider creating a database of currently-approved practices to give entities clarity on how previous cases were resolved and guide solutions for future projects, as well as drive consistency among inspectors.
    - Communicate strongly with stakeholders on where to find streamlined information on licensing – including posting in a central location on the EPA website – as well as making available members of the inspections team to receive advice, in an effort to help licensees be initially compliant and hence speed up the approvals processes.
- **Document** precisely and communicate clearly to the executive the resources that are required for licensing activities in periods when the workload increases significantly, once any process efficiency gains have been exhausted. In case additional resources are not available, engage with parent departments to discuss and agree in a transparent manner the EPA's priorities, in order to ensure that resources are allocated accordingly.

- **Advocate** for a new licence review process based on the principles of proportionality and risk, including creating one or more avenues between a full review and technical amendment for revisions reflecting varying degrees of risk to the environment. This should especially be utilised when new standards come into force, such as new BATs, that require a large number of revisions.

- **Fully implement and monitor** with performance indicators the new Compliance and Enforcement Policy to ensure that the enforcement and inspections system adheres to the principles of responsive regulation, as elaborated in the OECD Best Practice Principles for Enforcement and Inspection. These can include the following actions that can help promote compliance with regulations:

  o Ensure enforcement is consistently applied according to a methodology based on risk and proportionality that takes into consideration the probability and consequence to the environment, alleviating the need to sanction smaller scale infractions and promoting good practice. The approach of other EPAs may provide inspiration in this regard (Box 7) which could be augmented with research conducted through the EPA's research programme or work applying behavioural insights.

  o Develop detailed guidelines or checklists for regulated entities to follow in order to be as compliant as possible.

  o Ensure inspectors are trained with all skills necessary to deliver on compliance-focused inspections, including substantial training not only on technical but also other necessary professional skills such as understanding and managing risks, communicating and advising, promoting and supporting compliance, investigation, etc., as recommended in the OECD Regulatory Enforcement and Inspections Toolkit;

  o Work with regulated entities to identify the most burdensome inspection requirements.

- **Review** the scoring system behind the National Priority Sites to ensure all points can be verified before determining whether a site should be placed on the list to ensure fair treatment. For instance, public complaints could be investigated prior to adding them to the tally or complaints can be aggregated by issue (i.e. one complaint is registered for one issue, no matter how many complaints are received) to avoid gaming behaviour. Similarly, ensuring the right categorisation of compliance investigations is confirmed via internal review prior to adding to the tally can help minimise any potential individual errors.

- **Systematically co-ordinate** where possible and practicable with other state agencies who inspect the same licensees to try as much as possible to co-ordinate visits, information collected and compliance requirements, as recommended in the OECD Regulatory Enforcement and Inspections Toolkit. Extend this co-ordination to state agencies not involved in the environment to exchange information about regulated entities, which may reveal more systemic violations. Seek updates, where necessary, to legal frameworks to enable such activities.

- **Work** with local authorities and DCCAE to clarify the EPA's role as both providing advice to and supervising compliance of local authorities to ensure the relationship remains fit-for-purpose over the long-term. Continue the good work of the NIECE network for co-ordination, strengthening the focus on compliance assurance by local authorities. For example, it could be used to design processes and identify common rules and procedures for undertaking inspections.

- **Engage** in two-way conversations with stakeholders to improve trust in regulatory processes. Proactively and constructively engage with regulated entities when developing guidelines, reviewing internal processes (e.g. licensing processes) etc. Align to best practice in consultation by placing the consultation portal in a clearly visible location and systematically providing feedback to comments received: after each public consultation, provide a report (publicly disclosed on the EPA website) with comments about all the feedback provided by entities/citizens. The report should explain which recommendations were accepted by EPA and which ones were not accepted and

why. Such engagement need not jeopardise the EPA's independence from industry if appropriate structures are in place that foster a culture of independence.

- **Investigate** ways to improve the structures and mandates of the other external committees to ensure that the EPA is receiving holistic and systematic early stage advice from stakeholder groups.


Box 7. Principles of responsive regulation applied to promoting compliance

The OECD Regulatory Enforcement and Inspections Toolkit recommends that enforcement should be based on the principles of "responsive regulation," meaning that enforcement actions should be modulated depending on the profile and behaviour of specific businesses. This means focusing on the core goal of achieving compliance with regulations by foreseeing a range of differentiated responses based on the regulated entities' track record, risk assessment and effectiveness of different options. The gradation of available sanctions must be adequate to allow credible deterrence through the escalation of sanctions.

From a behavioural perspective, a sanctioning led-approach has shown ineffective at deterring poor behaviour and is premised on the faulty assumption that everyone is likely to misbehave. In fact, research shows that only a small number of people intentionally do bad things. Research further shows that most people want to the do the right thing most of the time but they might not know what or how to do it. Therefore, what is needed is help to do the right thing (Hodges, 2016).

Taking this into consideration, the Scottish Environment Protection Agency produced a range of regulated entity compliance categories, along with the engagement approach to use to encourage compliance for each category (Figure 3). The compliance spectrum is a key concept within SEPA's regulatory strategy, *One Planet Prosperity* (SEPA, 2016[4]).

Figure 3. Compliance and engagement spectrum
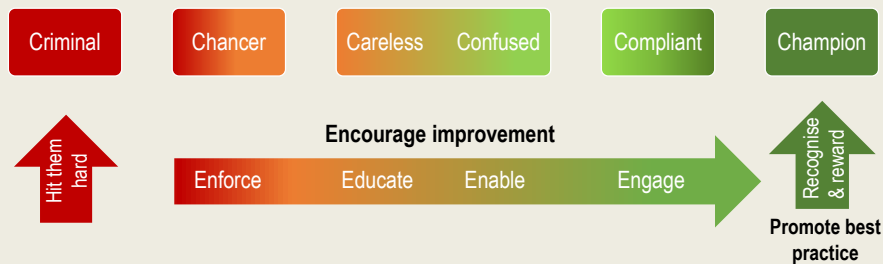
Source: (Hodges, 2016[5]), Regulatory Powers and Enforcement, PowerPoint presentation, University of Oxford, https://bit.ly/2LsbD2P (accessed 18 July 2019); (SEPA, 2016[4]), *One Planet Prosperity – Our Regulatory Strategy*, https://www.sepa.org.uk/media/219427/one-planet-prosperity-our-regulatory-strategy.pdf.

Output and outcome

Data collection

The EPA collects data from regulated entities in the framework of its licensing and enforcement activities, and recent innovations in processes have made important efficiency gains. The EPA recently introduced an electronic system for environmental and radiological protection licensing, monitoring and reporting ("LEMA") that centralises data requests and has reduced the burden on regulated entities. The EPA also collects large quantities of data to monitor and assess Ireland's environment, fulfilling several

statutory reporting duties to the national government and the EU (e.g. water quality monitoring for the WFD).

A newly-introduced data analytics team provides opportunities for targeted interventions. In 2018, the EPA established a small data analytics team to pilot the use of data science, spatial analysis, earth observation and data visualisation techniques, working in close collaboration with EPA subject matter experts. For example, working with the urban wastewater treatment data that Irish Water submits, the analytics team produced an urban wastewater scorecard that allows inspectors to quickly focus on the specific plants and parameters that are a problem among the thousands of data points.

Monitoring and reporting on performance

Regulated entities

The EPA implements a transparent reporting system on the performance of regulated entities in all areas of its work, although information is not always easy to find. An annual review of the performance of facilities is carried out and published in the annual reports on drinking water, wastewater and industrial and waste licence enforcement, along with Annual Environmental Reports (AER) which are submitted by all licensees and published online. Reports can be difficult to find on the website.

Ireland's environment

The EPA monitors, assesses and reports on Ireland's environment, but information is often dispersed and difficult to navigate online. The EPA makes data accessible to the public through its reports, such as the State of the Environment report published every four years, annual reports on drinking water, urban wastewater, bathing water, water quality, air quality, greenhouse gas emission inventories and projections and waste. Some data is reported in near real-time (for example, air quality, hydrometrics). The reports, data and indicators on environmental performance in various sectors can be found on the EPA website or on specialised websites hosted by the EPA (such as catchments.ie and beaches.ie), but the information is dispersed and difficult to navigate. For example, the "Ireland's Environment" pages (http://www.epa.ie/irelandsenvironment/) present some data on waste, whereas the National Waste Statistics pages (http://www.epa.ie/nationalwastestatistics/) present more extensive and detailed information, yet the Ireland's Environment page does not state that more detailed data is available elsewhere on the site. Data are also published on the national open data portal (https://data.gov.ie/organization/environmental-protection-agency) and Ireland's Environmental Open Data Portal (https://data.epa.ie/). Although publically available, many EPA-published datasets are difficult to use and understand for the general public or non-specialist audiences. The Environmental Open Data Portal, for example, is primarily intended as a resource for software developers.

The EPA

The EPA operates in the framework of a strategic plan 2016-2020, *Our Environment, Our Wellbeing*, which sets out five goals and fifteen associated outcomes (three per goal), but the lack of measurable targets means that it cannot easily be used to monitor the performance of the EPA. Each outcome encompasses several objectives. Measurement and performance monitoring is not possible as the plan does not include targets or baselines. The plan is translated into annual work programmes that list tasks for each Office. Some tasks are also defined as key performance indicators (KPIs). A progress report on the work programme is presented to the Board once a month. This monitoring focuses on the implementation of activities and projects, rather than the quality of processes and ultimately, the performance and impact of EPA.

Parallel processes for monitoring, with different sets of indicators, are burdensome and unsuited as a tool to drive improvement. Internally, there are two layers of reporting to the Board. First, the monthly monitoring on the implementation of annual work programme, as described above. Second, each Office submits narrative reports to the Board three times per year. These reports are to be commended as they include indicators that go beyond outputs to include indicators of sector performance (e.g. number of boil water notices issued) and the quality of regulatory processes (e.g. handling of complaints, results of legal action). However, it is not clear whether there is consistent reporting on the same indicators over time. There do not appear to be any targets associated with these indicators. Separate reporting by Office may obscure visibility of EPA's overall performance. Externally, a third layer is added through the Performance Delivery Agreement (PDA) with DCCAE and DHPLG. The PDA defines a small number of key high-level metrics and indicators that EPA must report on (Table 5) as well as over a hundred other performance indicators that are not reported on. These indicators are not explicitly linked to the strategic goals of the EPA. Performance delivery monitoring is carried out twice a year, at mid-year and year end.

Table 5. Eight high-level metrics and indicators included in the PDA 2018

Metrics/indicator
Number of Environmental and Radiological Decisions
Number of Industrial/Waste site visits
Number of Urban Wastewater and Drinking Water Site Visits
Number of EPA Reports published
Number of Reports on Environmental Research Projects published
Number of Open Data datasets on the DPER Open Portal
Number of visits to EPA website
Number of environmental queries from the public answered

Overall, indicators focus on outputs rather than more meaningful indicators of outcomes and performance. The KPIs included in the annual work programme and those defined under the PDA tend to focus on metrics (outputs) rather than quality of processes (e.g. time to process licence applications), outcomes of activities, or overall sector performance (i.e. water or air quality, safety of industrial sites…) (Box 8). The performance measurement indicators listed in the PDA tend to be vague ("legislative obligations met", "plan implemented"…). The KPIs in the annual work programme used for internal monitoring also typically focus on outputs, such as the approval of plans and strategies by the Board rather than indicators that can be used to monitor performance (Box 9). Furthermore, internal performance monitoring frameworks do not include quantitative targets.

Box 8. Measuring organisational and policy performance: the Canada Energy Regulator's departmental results framework (Canada)

The Canada Energy Regulator (CER) measures its effectiveness in delivering its mandate using a Departmental Results Framework (DRF). Within the DRF, the CER links its core responsibilities with outcomes, to which it attaches indicators that seek to demonstrate its performance in delivering its mandate. The DRF provides information that the CER uses to refine the approach that it takes to delivering its mandate over time.

For each core responsibility, the CER aggregates specific activities under a program to which the outcomes that the CER is seeking to achieve are linked to a performance indicator and target, along with the intent of the measure.

The CER has also established a Performance Measurement Evaluation Committee (PMEC). The PMEC, composed of senior CER officials and its CEO, reviews the DRF and presents the results to the CER'S Board of Directors quarterly. In the DRF quarterly performance report, the results and actions that the CER proposes to undertake in light of its performance are determined.

Source: Information provided by the Canada Energy Regulator (CER), December 2019.

Box 9. Key Performance Indicators

Key performance indicators (KPIs) provide a means to measure whether organisations are performing in relation to their strategic goals and objectives. A manageable number of well-designed KPIs give a clear picture of current levels of performance and can aid decision-making. Each KPI should be clearly linked to a strategic objective and accompanied by a target or benchmark.

Indicators of output from regulatory activity capture whether regulatory decisions, actions and interventions are effective (e.g. decisions taken which were upheld). Indicators of direct outcomes or the impact of outcomes could include, for example, compliance with the regulator's decisions.

Indicators of wider outcomes ("watchtower" indicators) can be included as learning (rather than accountability) indicators. These could include, for example, service and infrastructure quality (e.g. frequency and reliability of services to consumers).

Notes: The framework for performance indicators was proposed in the initial methodology for the performance assessment framework for economic regulators (PAFER) discussed with the OECD Network of Economic Regulators (NER). It has been refined to reflect feedback from NER members and the experience of other regulators in assessing their own performance.

Source: (OECD, 2015[6]), Driving Performance at Colombia's Communications Regulator, Figure 3.3, Paris, http://dx.doi.org/10.1787/9789264232945-en.

Formally, the EPA is accountable to the House of Oireachtas but lacks structured engagement mechanisms to report on its performance. The EPA prepares an annual report and account that are laid before the House of Oireachtas by the Minister of DCCAE, and published online by the EPA when approved by the Oireachtas. The report is structured in line with four out of five of the goals of the EPA strategic plan – regulation, knowledge, advocacy and "organisationally excellent" – while omitting "responding to key environmental challenges". The EPA is often called to appear before Joint Oireachtas Committees to discuss particular issues, or to submit written answers to parliamentary questions, but the EPA does not engage in a structured dialogue with the legislature on its performance or the findings of the annual report.
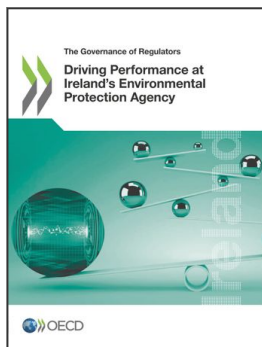
Recommendations

- **Share the experience of introducing a data analytics team with other regulators nationally and internationally**. The EPA should also continue to explore how data analytics can be applied to its work to improve its regulatory activities and knowledge functions.
- **Improve the accessibility of information on the website(s).** The EPA produces a wealth of useful technical information but does not make it readily accessible. The website needs to be streamlined and entirely redesigned to make data and information more accessible. Performance

reports on regulated entities need to be found easily. Data and information on Ireland's environment could be centralised and presented in formats that are easy to understand, download and use. Data visualisation tools could be used to help the public and non-technical audiences understand the data.

- **Better engage with regulated entities around performance.** For example, the EPA could organise events by sector (e.g. waste) or type of regulated entity (e.g. intensive farming) to discuss performance, identify best practices and recognise 'champions'. Such events could become important drivers of compliance and build trust between the regulator and industry.

- **Develop a unified, outcome-based system for EPA performance assessment and reporting.** The EPA should define a manageable number of KPIs with time-bound targets that capture the quality of processes (e.g. time to process licence applications), the outcomes of activities, and the overall sector performance (e.g. safety of industrial sites…). It will be important to agree on the KPIs and associated targets in partnership with the parent Departments so that they become a useful tool to focus the dialogue around the executive's expectations for the EPA. Finally, reporting could be centralised through the corporate governance programme in OCCS, rather than by Office, to enable a holistic view of the EPA's overall performance.

- **Consider including indicators of wider environmental outcomes (e.g. air quality, water quality…) in performance evaluation frameworks.** These indicators can be a "watchtower" to loop back and help identify problem areas, orient decisions and identify priorities. They should be used as learning rather than accountability indicators, recognising that EPA is not solely responsible or accountable for these outcomes.

- **Invest in outward, results-based communications to demonstrate the impact of EPA activities to a number of stakeholders.** The EPA should put in place a regular engagement activity with the Oireachtas to increase accountability as well as share the EPA's role and activities with the legislature. This could, for example, take the form of a yearly event. In all its communications around performance, the EPA must use plain language suited to a non-technical audience.

References

DPER (2016), *Code of Practice for the Governance of State Bodies*, Department of Public Expenditure and Reform, Ireland, https://govacc.per.gov.ie/wp-content/uploads/Code-of-Practice-for-the-Governance-of-State-Bodies.pdf.   [1]

EEB (2017), *Burning the evidence: A case study on large combustion plants*, https://eeb.org/library/burning-the-evidence-a-case-study-on-large-combustion-plants/.   [3]

Hodges, C. (2016), *Regulatory Powers and Enforcement*, PowerPoint Presentation, University of Oxford, https://bit.ly/2LsbD2P (accessed on 15 November 2019).   [5]

OECD (2017), *Driving Performance at Mexico's National Hydrocarbons Commission*, The Governance of Regulators, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264280748-en.   [2]

OECD (2015), *Driving Performance at Colombia's Communications Regulator*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264232945-en.   [6]

SEPA (2016), *One Planet Prosperity – Our Regulatory Strategy*, https://www.sepa.org.uk/media/219427/one-planet-prosperity-our-regulatory-strategy.pdf (accessed on 20 December 2019).   [4]