



EPA RESOURCE KIT:

BRIDGING THE GAP BETWEEN SCIENCE AND POLICY

A Knowledge Transfer Guide for Researchers

EPA RESEARCH

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EPA Resource Kit: Bridging The Gap Between Science And Policy

DEVELOPING A FRAMEWORK FOR BRIDGING THE GAP BETWEEN SCIENTISTS AND POLICY MAKERS

The Irish Environmental Protection Agency (EPA) funded a desktop study to improve communication between researchers and policymakers regarding Irish environmental issues and challenges. Over recent years there has been increasing recognition that for environmental policy to be most effective, policy-makers and regulators need to be well-informed by science. The major barriers to successful science-policy communication relate largely to the nature of environmental science, the nature of policy-making, and the gap between them. As effective dissemination of outputs and findings to users (including public bodies, NGOs and other researchers) is a critical stage in achieving change through research efforts, proposals were invited for the development of a toolkit of approaches to maximise the impact from research in terms of take-up and usage.¹

As part of the EPA STRIVE 2012 call *Developing a framework for bridging the gap between scientists and policy-makers*, AquaTT has completed a desktop study, workshops and a pilot training initiative. As a result of these activities, AquaTT has produced this current document, *Knowledge Transfer: An Introduction and Overview of the Irish Environmental Policy Context & A Step-By-Step Guide for Researchers*.

The first chapter in this document provides an introduction to how Irish environmental policy is developed. This chapter is intended as an essential reference guide for researchers to orient themselves within the policy landscape, thereby increasing their ability to transfer their research in order to affect policy positively. The second chapter provides an introduction to the concept of Knowledge Transfer, including its origins in the pursuit of measurable value creation from research. This chapter also introduces AquaTT's Knowledge Transfer methodology. The third chapter provides a step-by-step guide for researchers to develop and carryout a Knowledge Transfer plan. AquaTT believes that this document will help researchers to present the results of their work in targeted, accessible and engaging ways. If researchers can make the potential environmental and socio-economic benefits of their findings understandable to a non-specialist audience and effectively communicate their message, it is more likely to result in uptake and application in policy processes.

^{&#}x27;Taken from the EPA Strive call 2012 "Developing a framework for bridging the gap between scientists and policy makers"













About the authors



AquaTT is an Irish foundation set up in 1992 by UCC, NUI Galway and GMIT as a University Enterprise Training Partnership (UETP) focused on bridging the gap between academia and industry. The company provides a range of services (Knowledge Transfer, project management, dissemination, stakeholder engagement) to international research partnerships. AquaTT is one of the most successful Irish organisations in European projects, securing and implementing more than twenty-five in the last four years, and working with over 250 institutions. From these projects, AquaTT has developed an in-depth understanding of the current systems of communication between the worlds of knowledge generators (Research Community) and knowledge users (Industry, Policy, Society and Scientific Community) and the challenges and barriers that exist. Through several projects specifically focused on addressing the low level of innovation and value coming from EU funded projects, AquaTT developed a tangible methodology for Knowledge Transfer that requires a targeted and strategic approach. Building on this in-house expertise and knowledge, AquaTT has developed the current document as a resource for environmental researchers to use at any stage in their careers.



CHAPTER 1: INTRODUCTION TO IRISH POLICY

Sustainable development is a fundamental long-term challenge facing the world today. Research has an essential role to play in helping to achieve sustainable development by providing the intellectual foundations, analytical tools and empirical evidence upon which to build a more sustainable future.

In *Ireland's Environment 2012 - An Assessment*, the EPA stresses the need for environmental considerations "to be placed at the centre of policy and decision-making at national, regional and local levels". However, incorporating formal scientific and other important forms of knowledge into the environmental policy-making process is a difficult task. The immediate challenge for policy makers and researchers is to address the divide between scientific discovery and science-based policy. Effective communication and Knowledge Transfer of research outputs is a critical part of embedding research-generated knowledge into the development and implementation of environmental policies.

The current disconnect between science and policy-making has resulted in a call for more communication between policy-makers and scientists.³ Creating social change and solving problems requires both knowledge and the authority to make and implement decisions. Scientists have knowledge, but typically limited authority to bring about change, while policy-makers have the authority, but may not be aware of the most up-to-date knowledge to inform effective change. It is essential that scientists and policy-makers become more closely linked in order to drive change.

Why does Policy need to be evidence-based?

Policy-makers, leading scientists, as well as society in general acknowledge the need for policy to be more evidence-based, with increased emphasis on the quality of evidence and its potential use. It can be seen as a move from belief-driven politics towards rational decision-making, thereby ensuring increased transparency, robustness and relevance. There is a difference between a policy which is 'evidence-based' because there has been an autonomous, all-inclusive and thorough analysis of the available research evidence, particularly in reference to implications for policy, and a policy based on the specific use of external reference points with no justification. A distinction must also be made between research evidence-based policy and scientific research-based policy as scientific research often excludes results from other research areas such as economics and the social sciences.

Frances Ruane, Director of the Economic and Social Research Institute, has stated that: "The need to ensure social cohesion in the face of difficult decisions demands a robust policy-making process. Using research evidence to help improve policy making has much to commend it, especially as tolerance for ineffective policies and wasteful use of resources is now very low".4

⁴ http://ipa.ie/pdf/Administration/FrancesRuane.pdf







² http://www.epa.ie/pubs/reports/indicators/00061_EPA_SoE_2012.pdf

³ Delaney and Hastie, 2007; McNie, 2007

CHAPTER 1: Introduction to Irish Policy

CHAPTER 1: Introduction to Irish Policy

Over the last few decades, there has been a significant and rapid increase in the knowledge available on the environment. There needs to be an investment by all parties into new initiatives in order to support the transfer of this knowledge. A Knowledge Transfer system would deliver significant benefit to Ireland's environment by fostering a mutual understanding between the academic and policy communities, resulting in cutting-edge policy design and implementation.

Understanding the different worlds of Policy and Research

Scientists and policy makers occupy different landscapes. Their objectives, motivations, means of communication, and processes vary, as do the time frames in which they work. While scientists are motivated by discovery and often judged by their peers based on their publication rates, policy-makers are under pressure to make immediate decisions and are accountable to their constituents. Few scientists are trained to communicate science in a way that policy-makers and advisors can readily absorb and understand in order to translate information into action. Policy makers are generally under severe time constraints and have many other influences affecting their decision-making process. As a result of their differing objectives, expertise, and timelines, scientists and policy makers have limited capacity and time to collaborate.

The Policy world in an Irish context

Within policy, there are politicians such as the Ministers of State and TDs, and there are policy makers such as civil servants within the departments of Government. As stated by Frances Ruane: "On the policy making side, the focus is on those civil and public servants who analyse policy possibilities and present options (sometimes accompanied by recommendations) to politicians. The term policy maker is used to refer to them, following common usage of that term in Ireland... This term is not seen as denying in any way the constitutional role of ministers (and the Dáil) in the policy process, but it recognises that ministers bring forward policies that derive strongly from options put forward by the 'policy makers'". Policy making can be multifaceted, reflecting historic patterns, institutional structures, operational legacies, cultural influences and anecdotal references. The policy maker's role is to bring forward options for political decision-making.

In Ireland over the past 20 years, policy making has been subject to 'programmes for government' frameworks agreed by coalition partners and the social partnerships. This has led to many key policy issues being decided upon in situations where consensus is needed quickly and under the scrutiny of the public eye. Understanding who to contact in relation to policy and maintaining those contacts has been identified as a challenge for researchers. This is due to the fact that there are a lot of actors involved in the process and sometimes roles and responsibilities change as the process progresses. Public bodies and agencies under their aegis are typically given mandated roles and

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responsibilities by government. Within these organisations, responsibility is then assigned to specific departments and sections. Finding the specific public or civil servants whose job role it is to carry out the mandated tasks can be challenging. Furthermore, restructuring within organisations can sometime mean job roles change. In addition to the public/civil servants, consultants and advisors are often taken on by public organisations or in some cases directly by politicians to help provide expertise on specific aspects of a policy process. Identifying these individuals can also prove challenging due to the fact that they are only used on a contract basis.

Politicians have a responsibility to balance environmental policies which are being developed or are mandated to be implemented on a national level, with those already in place. There are several stages to any policy's process, and rarely are they set in stone with no review opportunity. At each stage of the process, policy makers may have need for different types of evidence. See Table 1 below for a general overview.

"Politicians have a responsibility to balance environmental policies which are being developed or are mandated to be implemented on a national level, with those already in place"

⁵ Ibid.

Table1: Components of a policy process and different evidence issues

Stage of the Policy	Description	Different Evidence Issues
Process		
Agenda Setting	Awareness and priority given to an issue	The evidence needs here are in terms of identifying new problems or the build-up of evidence regarding the magnitude of a problem, so that relevant policy actors are aware that the problem is indeed important. A key factor here is the credibility of evidence but also the way evidence is communicated.
Formulation	There are two key stages to the policy formulation process - determining the policy options and then selecting the preferred option (see Young and Quinn, 2002- 13-14)	For both stages, policy makers should ideally ensure that their understanding of the specific situation and the different options is as detailed and comprehensive as possible - only then can they make informed decisions about which policy to go ahead and implement. This includes the instrumental links between an activity and an outcome as well as the expected cost and impact of an intervention. The quantity and credibility of the evidence is important. Note: In an Irish context, the Formulation stage leads into a legislative process, described on page 14, which is the process of government by which bills are considered and laws enacted.
Implementation	Actual practical activities	Here the focus is on operational evidence to improve the effectiveness of initiatives. This can include analytic work as well as systematic learning around technical skills, expert knowledge and practical experience. Action research and pilot projects are often important. The key is that the evidence is practically relevant across different contexts.
Evaluation & Monitoring	Monitoring and assessing the process and impact or an intervention	The first goal here is to develop monitoring mechanisms. Thereafter, according to Young and Quinn (2002): "a comprehensive evaluation procedure is essential in determining the effectiveness of the implemented policy and in providing the basis for future decision-making". In the processes of monitoring and evaluation, it is important to ensure not only that the evidence is objective, thorough and relevant, but also that it is then communicated successfully into the continuing policy process.

Source: Evidence-Based Policymaking: What is it? How does it work? What relevance for developing countries? Sophie Sutcliffe and Julius Court, Adapted from Pollard and Court (2005)









While it is not the responsibility of the research community to design policy, as that is the function of policy makers, it can play an important role by generating evidence that can support the design of effective and robust policy, evaluate its outcomes, and, possibly, demonstrate the value of policy based on the available evidence. However, within science there are many responsibilities which are foremost in any scientist's mind. These can include publishing pressures, administrative duties, teaching obligations, employment opportunities, as well as conducting their research. The currency of success for scientists is still peer review publications, to the extent that the phrase "Publish or Perish" was coined, meaning that there is increasing pressure on scientists to publish their research. Currently there is limited incentive or reward for scientists to transfer their knowledge effectively.

Stages in the Irish Policy Process

For the purposes of this document, the Irish policy process is separated into 4 stages:

FORMULATION

Identification of a problem and demand for government action, agenda-setting, debate of policy proposals by various parties (e.g. governmental departments, think tanks, interest groups), legalisation of policy into law.

IMPLEMENTATION

Setting up and running of systems to ensure compliance with the different obligations specified within a policy.

MONITORING AND ENFORCEMENT

Carrying out of the monitoring activities of the policy, ensuring that the systems put in place during implementation are enacted and are in compliance with the policy.

> EVALUATION AND REVIEW

Reporting on the results of the previous policy stages to ensure the most effective and efficient management of a policy.

Please note: individual stages of the policy process may overlap (see Figure 1 on the following page).

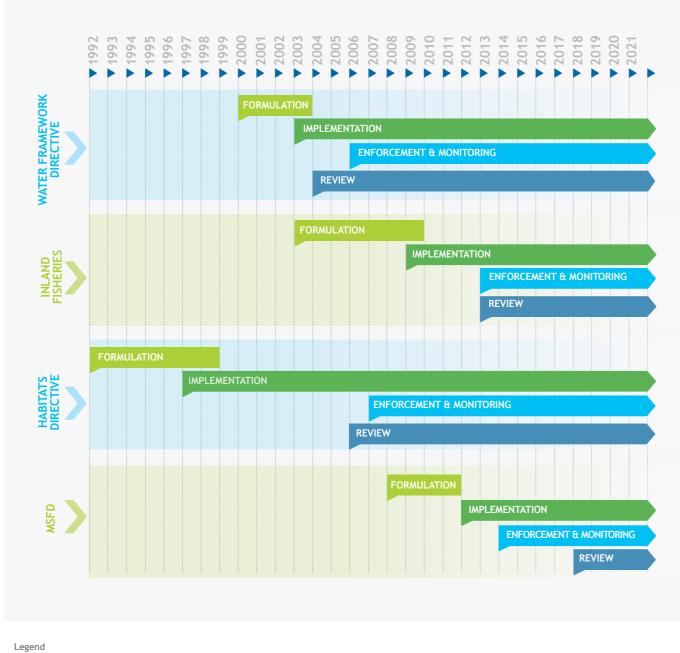
An example of the policy process of the Water Framework Directive is available in Annex 1.







Figure 1: Comparison of Policy Stages



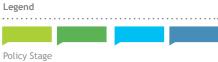


Figure based on data for the Water Framework Directive collected by AquaTT during a desktop review on Environmental Policy in Ireland for the EPA-funded STRIVE project, which resulted in this resource kit.







Environmental policy formulation

Environmental policy, as with all policy affecting Ireland, can begin in two ways. It can be as a Directive issued by the European Commission with the mandate on each member state to impose legislative procedures in order to achieve the aims of the Directive; or to a lesser extent it can be a Bill brought forward on a national level by the Government in order to introduce, change or amend legislation for environmental protection. In both cases, details of the proposed legislation are brought to the attention of the Oireachtas by the Government. Proposed legislation is determined by the relevant policy makers; the public and civil servants who have considered various options and recommendations, as well as in certain circumstances individual Policy Advisors brought in especially to advise on a particular piece of legislation. Once the details of the proposed legislation are determined, they are brought to the attention of the Oireachtas by the Government as the first step in the Legislation Process.

Apart from the European Union, the Oireachtas is the only institution in Ireland with the power to make laws for the state. The Oireachtas consists of the Office of the President and the two Houses of Parliament: Dáil Éireann (the House of Representatives) and Seanad Éireann (the Senate).

The Legislation Process in Ireland is the process of government by which bills are considered and laws enacted. All laws start as Bills, which are proposals for legislation. There are three sources of Bills in Ireland:

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- > Public Bills proposed by the Government. Most Bills fall into this category.
- Private Bills promoted by local authorities, private organisations or individuals. These are rare and there are special procedures to deal with them.
- > Private Members' Bills put forward by opposition parties and independents.

A Bill brought forward either as a Private Member's Bill or as a Public Bill, may be commenced in either the Dáil or the Seanad but it must be passed by both Houses to become law. Usually Bills are commenced in Dáil Éireann.

Before it is introduced to the Dáil, the contents of a Bill are approved by the Government. Usually there will be a process of consultation with government departments and groups likely to be affected by the Bill. Sometimes the government will publish a Green or White Paper. This is a discussion document which sets out the Government's ideas and invites comment and views from individuals and relevant organisations.

The Bill is then put before the Dáil for a general debate on the principles of the Bill. Members of the Dáil may make suggestions for amendments and additions to the Bill. The Bill is then sent to committees to be examined section by section. Many of the Joint Committees include a submission stage and they may also choose to invite statements from experts and stakeholders that are relevant to the Bill. After the committee stage, more amendments may be made. The final stage in the process is a debate in the Dáil, confined to the contents of the Bill. The members of the Dáil then vote on whether to pass the Bill.

An invitation to consult will often be issued to relevant organisations during the proposal stage of legislation, as well as during implementation of the related regulations or statutory instrument.

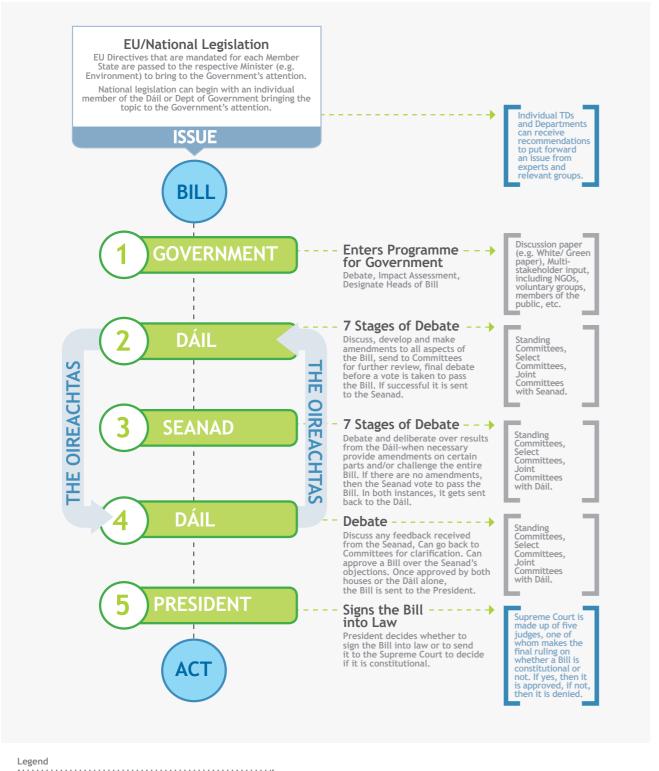
Once the Bill has been passed by both Houses of the Oireachtas, the Taoiseach presents a copy of the Bill to the President for signature. Once the President has signed the Bill it becomes an "Act" and has legal force.







Figure 2: Policy Formulation: This figure outlines the Legislative process that takes place within the Formulation Stage.



Activities

for each

Policy

Consultation with

external expert(s)

used at each

Figure based on data for the Water Framework Directive collected by AquaTT during a desktop review on Environmental Policy in Ireland for the EPA-funded STRIVE project, which resulted in this resource kit.







Environmental policy implementation & enforcement

Part of an Act includes the specifications for its implementation, in particular delegation of the responsibility for its execution to a particular government department. Listed in Diagram 2 are the different departments involved in Environmental Policy as well as the associated bodies under their aegis.

Statutory Instruments have a wide variety of functions. They are not enacted by the Oireachtas but allow persons or bodies, to whom legislative power has been delegated by statute, to legislate in relation to detailed day-to-day matters arising from the operation of the relevant primary legislation. Statutory instruments are used, for example, to implement European Council Directives, designate the days on which particular District Courts sit and delegate the powers of Ministers.

In general, the Governmental department with responsibility for a particular Act will delegate duties for integration of the Act into Irish Policy to one or more of their associated bodies under their aegis. Different departments may have responsibility for different aspects of the Act and therefore different authorities may have responsibilities for the same Act but in different roles.

There can often be several options for filing a submission with regard to proposed legislation at various times during its proposal, implementation, monitoring and review. This opportunity is open to local and regional authorities, NGOs, organisations and individuals. Details can be found on the websites of the relevant authorities, e.g. Department of the Environment, Community and Local Government for water sector reform submissions. There is also a full list of all open calls for submission on the IEN website.









Within an Act which has passed into law, responsibility to ensure implementation is delegated to one or more governmental departments. For Environmental Policy this is typically the Department of Environment, which then delegates duties to their filiated bodies or to specific groups through statutory instruments.

What Researchers need to know about Irish Policy

There is no doubt that the policy system in Ireland can seem complex and daunting. Deciding where to start can be difficult. However, it should be remembered that, in Ireland at least, the policy system is based around a reasonably small network of individuals and organisations, and while the people might change or move position, in general the process and organisational structure of the policy arena remains the same.

The EPA's 2013 report <u>Environmental Protection through Research</u> highlights how research on the environment can be critical for the safeguarding and protection of Ireland's natural resources. It includes information on how EPA-funded research has helped to inform policy in the past, stating: "Ireland, like all EU Member states, has significant environmental responsibilities and obligations in the areas of climate change, water management, waste management and protecting our natural environment. Policy-supporting research informs effective action on environmental challenges and identifies solutions and opportunities. A number of research projects have provided significant support for evidence-based decision-making for our policy makers".

How can Researchers make sense of all this?

Consider:

- Policy change does not happen in a vacuum. There is always an existing set of policies (some of which may conflict with one another), a history of decisions, vested interests, opposing viewpoints, and individual personalities of decision makers to take into account.
- There seems to be increasing political will recognising the benefits of evidence-based policy-making, as seen by the investment into research prioritisation exercises in Ireland (2012) and as showcased in the EPA's Environmental Protection through Research (2013).
- Most governmental and state bodies now have their organisational structures available online.
- Researchers can view all Irish statutory instruments on the Oireachtas website, including the details of who is responsible for different aspects of implementation of legislation.
- Details of upcoming, current and past opportunities for submission on various aspects of policy can often be found on the websites of governmental departments and on the websites of other organisations, such as the Irish Environmental Network.⁷
- Announcements must appear in the national press if there is any significant opportunity for submission with regard to policy developments.



Figure

Visualisation of implementation actors





⁶ https://www.epa.ie/pubs/reports/research/spr/petrreport.html

http://ien.ie/news/consultation-calls/

As will be discussed further in the "Introduction to Knowledge Transfer" as well as the "Step by Step Guide", the difference between a good end result and a great end result can be due to having a good communication plan instead of having a great, targeted and considered Knowledge Transfer process. Awareness of the Who, What, Where, When, and Why details enable researchers to selectively choose the best approach to maximise the uptake and utilisation of their research.



Policy actors and researchers play different roles in society and as such they have different working cultures, traditions, needs and responsibilities. Researchers are responsible for ensuring that the right people receive and understand the knowledge they have generated through research. This in itself needs consideration as not all policy actors are the same and they don't share a common mandate. To identify who they need to focus on, researchers should consider the policy actor's point of view and remember that:

- > Policy actors are busy
- Their time needs to be shared out amongst different issues, meetings and discussions, administrative duties and external influences which can pull them in different directions. They rarely have the time, expertise or motivation to read a large report or translate a data set.
- Policy actors may not have technical expertise in relation to the research area in question Politicians and other policy actors come from many different backgrounds and are regularly moved within departments and roles, requiring them to have a wide but general knowledge base.
- Policy actors may have many different sources of information Before making a decision, policy actors need to listen to many points of view. This decision-making process often takes place under the scrutiny of the public. Therefore, policy actors want knowledge presented as a clear picture showing the pros and cons in the relevant context and from a policy perspective.
- Policy actors might not understand the relevance to them As mentioned, policy actors have little time and often little technical experience. They need to be able to see a link to their own work or to an action which they can take as a result of a researcher's knowledge.



A researcher's knowledge might take the form of different messages that can be conveyed.8

> Awareness

If policy makers are not aware that a problem exists, they cannot do anything about it.

Importance

Information about the scale of the issue. How big is it? How many people are affected? Where are they located?

> Analysis

A discussion of the background causes and effects of the problem. Why does the problem exist? What are its effects?

> Options

Information about the different policy options. What are the options for solving the problem? What are the strengths and weaknesses of each option? (Note: it may be more effective to leave the options out and focus instead on just one recommendation).

Recommendations

Evidence in favour of a particular option. Why is this option better than the others? Provide evidence to show that it will be effective (particularly cost effective).

Legal language

Proposed language for a draft law or policy. It may be useful to suggest specific wording for a new law or agreement - or to comment on an existing proposal for wording.

"If policy makers are not aware that a problem exists, they cannot do anything about it"













⁸ http://www.fao.org/docrep/014/i2195e/i22195e02.pdf



Policy does not always mean policy in the strictest sense. Consider all the parts of policy that might not have to do with creating a legal instrument or amending/adapting existing ones. Policy can also include any decisions regarding the implementation, monitoring, evaluation and compliance of policy for the environment. Remember that policy formulation and dialogue about policy can happen at a local, regional, national as well as international level.

Therefore, when trying to influence policy, <u>timing</u> can be very important. Policy making can be a very long, drawn-out process. Once a decision has been made and put into law, it can be very difficult to amend it. This means that researchers must try to <u>anticipate</u> the policy decisions at each policy stage and understand the timetable and processes that lead up to key decisions being made.

Remember the different stages involved in developing a policy:

- **>** Formulation
- **Implementation**
- Monitoring & Enforcement
- Review











Later in this document, the communication channels for use in Knowledge Transfer activities will be discussed. These channels are important routes for researchers' knowledge and require the individual researcher to identify the most appropriate ones. Keep in mind:

Routine reporting periods: various government bodies prepare regular reports on the environment. For example, they may prepare monthly reports of monitoring results, status updates and priority areas. Moreover, government bodies meet regularly to plan policy changes, such as in joint committees and advisory meetings.

Researchers can use this opportunity to:

- Release information just before regular meetings.
- Try to get their issue onto the meeting agenda.
- Request an opportunity to attend and/or present.
- After the meeting, prepare information in response to decisions made.
- Cyclical events: occur at more-or-less predictable intervals.

 Some events (such as the Annual Environmental Law conference) offer an opportunity to bring issues to policy makers' attention. The Irish Environmental Network produces a regular Green Events Guide e-newsletter, to help researchers stay informed about events of environmental interest in Ireland.9

Researchers can use this opportunity to:

- Prepare an information campaign in the build-up to the event.
- Introduce themselves and open the door for further discussions with specific policy makers.
- Use the event to bring policy-makers' attention to their topic.
- Combine their efforts with other relevant researchers to provide a stronger argument.
- Identify intermediaries and/or multipliers to support their efforts in communicating results.
- One-off events: do not occur in a predictable cycle, but usually have a long lead-time during which researchers can get policy-related information to those who need it. Examples of one-off events are policy reviews, development of new party policies, discussion of a new law in the Oireachtas and negotiations over new European legislation.

Researchers can use this opportunity to:

- Respond quickly with policy options to influence the issue (or avert future problems).
- Submit details of their research as evidence for changing or adjusting the approach that is being taken.

⁹ http://ien.ie/newsletters-events/









According to the United Nations Environment Programme (UNEP) Foresight Process on Emerging Environmental Issues for the 21st century, the crosscutting issue "Broken Bridges: Reconnecting Science and Policy" is the fourth most pressing issue globally in efforts to achieve sustainable development. The report states that critical scientific knowledge is not being communicated effectively to audiences ranging from decision makers to the general public. However, in Ireland "the Government's Decision to approve the Heads of the Regulation of Lobbying Bill 2013, marks a significant step in bringing greater openness and transparency to the important process of interaction between the political and administrative systems and all sectors of society who communicate directly or indirectly on specific policy, legislative matters or prospective decisions". In the control of the process of prospective decisions.

The contribution researchers can make to the policy making process, and why they should make it, has been clearly stated by the EPA: "The complexity of existing and emerging environmental issues and the range of causal factors means that environmental policies must be underpinned by an in-depth level of knowledge that needs to be delivered through a systematic programme of environmental research". 12

"Environmental policies must be underpinned by an in-depth level of knowledge that needs to be delivered through a systematic programme of environmental research"









An Oireachtas:

A brief guide to how your Parliament works (including definitions of terms and processes)

www.oireachtas.ie/parliament/media/michelle/parliamentworks/Parliamentary-Guide-Eng-(web).pdf

Contact details for Members of the Dáil

www.oireachtas.ie/parliament/tdssenators/tds

Contact details for the Seanad

www.oireachtas.ie/parliament/tdssenators/senators

Current list of state of play of Bills before Dáil and Seanad

www.taoiseach.gov.ie/eng/Taoiseach_and_Government/Government_Legislation_ Programme/State_of_Play_of_Bills_before_the_Dáil

Full list of Committees

www.oireachtas.ie/parliament/oireachtasbusiness/committees_list

Joint Committee on Agriculture, Food and the Marine membership www.oireachtas.ie/parliament/oireachtasbusiness/committees_list/agriculturefoodandthemarine/contact

Joint Committee on Environment, Community and Local Government membership www.oireachtas.ie/parliament/oireachtasbusiness/committees_list/environmentcultureandthegaeltacht/members

The Government of Ireland website

www.gov.ie

Contact Details for the Office of the Taoiseach

www.ahg.gov.ie/en/ContactDetails

Contact Details for Ministers of State www.taoiseach.gov.ie/eng/Taoiseach_and_Government/List_of_Ministers_ Ministers_of_State

How to Find your local T.D.

www.whoismytd.com

Contact Details for Government Departments:

Department of Environment, Community and Local Government

Minister Alan Kelly, T.D.

Minister of State Paudie Coffey, T.D.

Contact Details: www.environ.ie/en/ContactUs

Local Authorities Contact details:

www.environ.ie/en/LocalGovernment/LocalGovernmentAdministration/LocalAuthorities/

Department of Agriculture, Food and the Marine

Minister Simon Coveney, T.D.

Minister of State Ann Phelan, T.D.

Minister of State Tom Hayes, T.D.

Membership: www.agriculture.gov.ie/aboutus/aboutthedepartment/managementofthedepartment







¹⁰ UNEP, 2012

¹¹ http://per.gov.ie

¹² Environmental Protection through Research, EPA 2013.

CHAPTER 1: Introduction to Irish Policy **CHAPTER 1: Introduction to Irish Policy**

Email: The format for email to this Department is

firstname.surname@agriculture.gov.ie

Otherwise emails can be forwarded to any section or official via

info@agriculture.gov.ie

Department of Arts, Heritage and the Gaeltacht

Minister Heather Humphreys, T.D. Minister of State Joe McHugh, T.D.

Minister of State Aodhán Ó Ríordáin, T.D.

Membership: www.ahg.gov.ie/en/AboutUs/Departmental_Overview_Public_En.pdf

Contact details: www.ahg.gov.ie/en/ContactDetails

Department of Communication Energy and Natural Resources

Minister Alex White, T.D.

Minister of State Joe McHugh, T.D.

Overall management committee contact details

www.dcenr.gov.ie/Corporate+Units/Management+Committee

Membership of the Communications division

www.dcenr.gov.ie/Communications/Contact+details

Membership of the Energy Division listed below:

Peat Division

www.dcenr.gov.ie/Energy/Peat+Division/Contact+Us.htm

Electricity and Gas regulation

www.dcenr.gov.ie/Energy/Electricity+and+Gas+Regulation/Contact+Us+and+Descriptions+of+what+each+person+does.htm

Energy Efficiency and Affordability unit

www.dcenr.gov.ie/Energy/Energy+Efficiency+and+Affordability+Division/Contact+details.

Oil Security Division

www.dcenr.gov.ie/Energy/Oil+Security+Division/Contact+Us.htm

Renewable Energy

www.dcenr.gov.ie/Energy/Sustainable+and+Renewable+Energy+Division/Contact+Information.htm

Membership of the Natural Resources Division listed below:

Inland Fisheries Division

www.dcenr.gov.ie/Natural/Inland+Fisheries/Contact+Us/

Exploration and Mining Division

www.dcenr.gov.ie/Natural/Exploration+and+Mining+Division/Contact+Us

Petroleum Affairs Division

www.dcenr.gov.ie/Natural/Petroleum+Affairs+Division/Contacts/

Geological Survey of Ireland (Division of DCENR)

www.gsi.ie/Contact+Us









How to find Acts of the Oireachtas:

Primary Legislation

Approximately 40 Acts of the Oireachtas are passed each year. These are available in print from the Government Supplies Agency, which is part of the Office of Public Works - see contact details on the Irish Legal Publishers page. www.ucc.ie/law/irishlaw/publishers

In electronic format there are various sources:

The Attorney General's Office

This site provides access to the Acts from 1922 to date and crucially also the Legislation Directory, which lists amendments to date. It is also possible to a certain extent to see whether a particular section of an Act is actually in force by checking the Commencement Orders section of the Legislation Directory. www.irishstatutebook.ie

The Houses of the Oireachtas - Here you will find all Acts passed from 1992 to date, as well as all Bills published from 1997 to date. The site lists legislative history of Bills to date, including links to all relevant Parliamentary debates. www.oireachtas.ie/parliament

Secondary Legislation: Statutory Instruments

Most subordinate legislation is made by Government Ministers under powers conferred on them by Acts. Approximately 500 pieces of subordinate legislation are passed per year. Electronic access is provided at the following sites:

The Attorney General's Office - offers Subordinate Legislation from 1922 to date. There is no easy way to find out whether a piece of subordinate legislation is still in force or has been amended.

www.irishstatutebook.ie

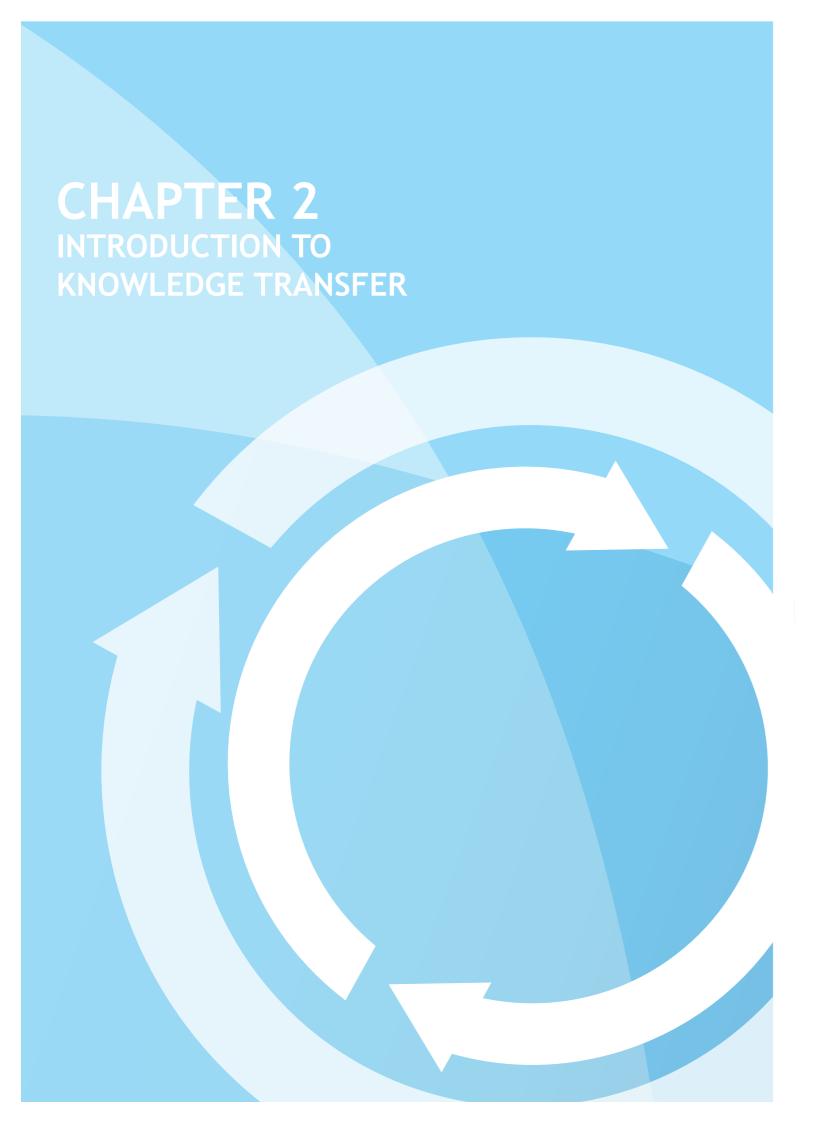
Selected Statutory Instruments 2002 to date are available on the Irish Legal Information Initiative (IRLII) website.

www.ucc.ie/law/newirlii/legislation/sidisp.php









CHAPTER 2: INTRODUCTION TO KNOWLEDGE TRANSFER

Context

In 1973 the European Economic Community (EEC), now the European Commission, unveiled its first Environmental Action Programme (EAP) with the stated aims of preventing environmental damage, conserving an ecological equilibrium, and ensuring the rational use of natural resources. In the same year, Ireland joined the EEC. Since then, the environmental policy landscape of Europe has changed significantly, and through its engagement with the EU, Ireland's environmental policy landscape has experienced dramatic change also.

Forty years later, the 6th EAP (adopted in 2002) recognises that policies must be based on sound science, economic assessment of cost-effectiveness, and the transparent engagement of all major stakeholders. Sound science is increasingly important for good policy making. The importance of science for policy-making has been included in the European Commission's proposal for a new Environment Action Programme for the EU (7th EAP) entitled *Living well, within the limits of our planet* that will guide environment policy up to 2020. ¹³ One of the proposal's priority objectives aims to ensure that policies benefit from state of the art science.

Despite the widespread acknowledgement that policy must be science based, a recent report by the United Nations Environment Programme (UNEP) on emerging environmental issues for the 21st century cites the cross-cutting issue "Broken Bridges: Reconnecting Science and Policy" as the fourth most pressing issue globally in efforts to achieve sustainable development (UNEP, 2012). 14 The report indicates that critical scientific knowledge is not being communicated effectively to audiences ranging from decision makers to the general public.

An important challenge for environmental policy is to make the best use of research results and new scientific findings to inform and underpin policy development and implementation. It is important that researchers communicate scientific findings to policy makers in an appropriate and accessible way in order for them to make the right choices when developing policies aimed at delivering sustainable solutions to environmental problems. An improved dialogue between the scientific and policy-making communities is necessary to improve linkages between policy needs and research programmes, as well as to enhance the accessibility of scientific knowledge to policy makers. This dialogue should take place at all levels - local, regional, national, and international.







^{13 &}lt;u>http://ec.europa.eu/environment/newprg/index.htm</u>

http://www.unep.org/pdf/Foresight_Report-21_Issues_for_the_21st_Century.pdf

CHAPTER 2: Introduction to Knowledge Transfer

What is Value Creation?

As early as 1945 the U.S. Office of Scientific Research and Development (OSRD) identified that for the most effective development of scientific advances there must be a continual interaction between the scientist in the laboratory and the wider society to effectively and quickly convert scientific discovery into practical applications, jobs, green growth and social progress. In a seminal report, *Science: The Endless Frontier*, the OSRD stated: "Advances in science when put to practical use mean more jobs, higher wages, shorter hours, more abundant crops, more leisure for recreation, for study... But to achieve these objectives - to secure a high level of employment, to maintain a position of world leadership - the flow of new scientific knowledge must be both continuous and substantial". Increasingly, research funding bodies are challenging researchers to demonstrate the wider relevance of their research, in order to improve competitiveness and ensure a measurable return on research investment. Return on investment, or Value Creation from research, can be identified in the economy, in academia and throughout wider society.

From an academic perspective, research can create value within the sphere of academic institutions by:

- Advancing understanding on issues of importance.
- > Developing and using new and innovative methodologies, equipment and techniques.
- Developing expertise and knowledge in existing or new fields.
- > Producing highly skilled and trained researchers.

When we consider what value creation from research can offer to the economy, outcomes can include:

- > Creating commercial wealth and jobs.
- > Supporting economic competitiveness.
- > Contributing to regeneration and economic development.
- Increasing the commercialisation and exploitation of scientific knowledge, leading to spin out companies, and the creation of new processes, products and services.









Finally, social value is created from knowledge when it "makes society better" or society is better off when its members are better off. Examples of Value Creation to society can include:

- Enhancing people's quality of life, health and well-being.
- Improving the effectiveness of public goods and services and delivery of public policy.

> Contributing toward environmental sustainability and protection.

Examples of environmental benefits arising from Value Creation can include:

- Improved drinking and waste water standards.
- Improved security (food, water, energy and climate).

Latest developments in Knowledge Transfer

There is much confusion and misunderstanding surrounding communication terminology in the scientific community. Terms such as dissemination, communication, outreach, engagement and Knowledge Transfer are often used interchangeably to refer to the sharing of research results. AquaTT has defined a number of terms in the context of Knowledge Transfer and the approach it has undertaken:

- > Communication is the imparting or exchanging of information by producing and negotiating meanings (implied or explicit significance), a practice which always takes place under specific social, cultural and political conditions.
- Dissemination is typically a one-way communication and promotion activity and is effective in raising awareness of a research project and its objectives and aims.
- Public engagement is a term for any activity that encourages the public to establish a connection with and/or become involved in science and scientific research.
- > Science outreach entails science communication initiatives directed to the general public, rather than the scientific community. The goal of this activity is to create awareness among the general public about science and its implications for citizens.
- Nowledge Transfer describes how knowledge and ideas move between knowledge sources to the potential users of the knowledge. It consists of a variety of activities which aim to capture and pass on knowledge, skills and competences from those who generate them to those who







¹⁵ Science, the endless frontier; a report to the President on a programme for post-war scientific research (1945). V Bush, United States Office of Scientific Research and Development

CHAPTER 2: Introduction to Knowledge Transfer

According to Professor Anne Glover (Chief Scientific Advisor to the European Commission): "Research not communicated is research not done". As can be seen from the terminology above research can be communicated in a number of ways but is dependent on the objectives of a communication strategy. Objectives can include awareness raising (communication in the true sense) or influencing a change in behaviour (Knowledge Transfer).

Current literature describes three models of knowledge transfer:17

- Producer Push Model where researchers are responsible for transferring and facilitating the uptake of research knowledge, i.e. to push knowledge towards audiences they identify as needing to know about the specific knowledge.
- ➤ User Pull Model where the user is responsible for identifying and using research knowledge, i.e. to pull knowledge from sources they identify as producing research useful to their own decision-making process or situation.
- **Exchange Model** where researchers and target users are jointly responsible for the uptake of research knowledge.

The Knowledge Transfer field is moving towards the Exchange Model as the most ideal, but there are inherent difficulties in the transfer of knowledge from research. Researchers are not often aware of how the knowledge they possess can be valuable to others or how to transfer it effectively to others so that it can be taken up and applied or adapted before application.

Introduction to AquaTT's experience in Knowledge Transfer to Policy

AquaTT has extensive experience of working on major European research projects, and has gained significant insights into the current practices in which knowledge from publicly-funded research is being managed and transferred through four projects in particular:

- MarineTT -European Marine Research Knowledge Transfer and Uptake of Results (http://www.marinett.eu).
- > STAGES Science and Technology Advancing Governance on Good Environmental Status (http://www.stagesproject.eu).

- MG4U Marine Genomics for Users (http://www.mg4u.eu).
- Aqualnnova Supporting governance and multi-stakeholder participation in aquaculture research and innovation (http://www.eatip.eu/default.asp?SHORTCUT=100).











Through these projects, AquaTT has reviewed over 2,500 European Union Framework Programme and Member State research projects and analysed them to determine the potential applicability of new knowledge. Based on the insights gained from this work, AquaTT has developed tools and practices designed to ensure that researchers are equipped to transfer the results of their research to the correct user and to ensure that value is generated.

The AquaTT Knowledge Transfer Strategy involves five steps, which require researchers to:

- 1. Assess your knowledge describe your Knowledge Outputs.
- 2. Identify Policy and Target User(s) identify the policy process you want to target and identify your target users(s).
- 3. Profile your Target User(s) understand the individual profile of your target user(s).
- 4. Develop Plan: create a Detailed Knowledge Transfer Plan checklist of important factors to develop a detailed transfer plan.
- 5. Carry out and Measure carry out Knowledge Transfer activities and measure success.

The following chapter discusses these steps in further detail and provides an implementation guide for researchers to use these steps to develop their own specific Knowledge Transfer strategies.

Challenges and the way forward in Knowledge Transfer

Today one of the biggest challenges for public research organisations is to transfer publicly-funded research knowledge into the socio-economic fabric to achieve value creation. Creating social change and solving problems requires both knowledge and the authority to make informed decisions. Scientists generate knowledge but often experience difficulty conveying this knowledge to decision makers. Linking these two groups is imperative for making informed decisions that can drive change. Increasingly, research funding bodies require researchers to demonstrate the relevance their research has for improving competitiveness and delivering measurable returns on research investment. This has become especially pertinent given the current public research budget constraints and intensive global competition.

Implementing an efficient Knowledge Transfer Strategy that is tailor-made to the needs and capacities of specific target users, and involves apposite channels and messaging, can limit the loss of knowledge. In the absence of a Knowledge Transfer Strategy, knowledge can be lost or overlooked, thereby reducing potential opportunities to achieve societal benefit.

The Research Council UK (RCUK) recently issued a statement announcing its

¹⁶ http://www.isciii.es/ISCIII/es/contenidos/fd-el-instituto/fd-comunicacion/fd-noticias/Launch-web-portal.pdf

¹⁷ Lavis, J.N., Ross, S.E., Hurley, J.E., Hohenadel, J.M., Stoddart, G.L., Woodward, C.A., Abelson, J. Examining the role of health services research in public policy making. The Millbank Quarterly, 2002:80(1) 125-154.

CHAPTER 2: Introduction to Knowledge Transfer

commitment to "continue embedding throughout the research base a culture in which excellent research departments consistently engage with business, the public sector and civil society organisations, and are committed to carrying new ideas through to beneficial outcomes, across the full range of their academic activity." The same statement ends with recognition that the responsibility for achieving these outcomes is "shared by both the funders of research and the higher education institutions where the research takes place. Therefore, these outcomes should be recognised and rewarded through funding mechanisms, career development and the management of research". 18

Through its extensive work in Knowledge Transfer, AquaTT has found that barriers can be both individual (researcher) and institutional (public research organisation or research funding body). Researchers today have many demands on their time, not only are they engaged in research, they also have teaching commitments, administrative requirements and a need to publish. Researchers must be encouraged and supported to engage in Knowledge Transfer to transmit good ideas, research results and skills between universities and other research organisations, industry, policy-makers and/or the wider community. Examples of **individual researcher barriers** include:

Individual Research Barriers

- Failure by researchers to engage in systematic analysis of Knowledge Outputs, which is essential to identify potential users and applications of the knowledge.
- Researchers sometimes lack awareness of politics and how policy is developed and may have unrealistic expectations about what their research can achieve.
- Researchers are often unsure of how to carry out Knowledge Transfer.
- Researchers are unaware of who is responsible for carrying out Knowledge Transfer.

On an institutional front, the management structures of public research organisations do not adequately recognise or value Knowledge Transfer. This position is changing, but there is still some way to go. In this context, the incentives and motives of career academics need to be examined also. Academics are not, in the main, motivated by financial gain but by the recognition of their peers and the prospect of career progress within the academic profession. At present the main **institutional barriers** are:

Institutional Barriers

- Lack of investment in Knowledge Transfer.
- > Lack of an embedded Knowledge Transfer culture within the academic community.

18 http://www.rcuk.ac.uk/ke/policies/

The above barriers are compounded in the policy arena as policy-making is not an event but an "ethereal, diffuse, haphazard and somewhat volatile" process.¹⁹ The consequences of researchers failing to understand the policy cycle and identify clear opportunities for intervention are clear: "So long as researchers presume that research findings must be brought to bear upon a single event, a discrete act of decision-making, they will be missing those circumstances and processes where, in fact, research can be useful".²⁰

The issue of economic relevance of scientific research has been on the science policy agenda for decades but today there is a pronounced need for the evaluation of the social, cultural and ecological impact of scientific research. Solving societal and environmental challenges will require scientific results with a high level of clarity, accessibility, and credibility. There is a palpable and pronounced shift towards embedding Knowledge Transfer disciplines in public research organisations. This new approach promotes a culture of Knowledge Transfer where researchers are rewarded for delivering on all three institutional missions: teaching, research, and Knowledge Transfer.

Much has changed in Ireland since its European accession in 1973, and as the country has gradually shifted away from its traditional reliance on agriculture, the pressures on our environment have grown. EU legislation has been, and continues to be, a significant force for keeping these pressures in check, and Ireland's application of EU legislation has shown consistent improvement. Ireland has demonstrated a strong commitment to meeting its environmental targets but will need sound scientific evidence and knowledge as the basis of the policy-making process to ensure that any new legislation drafted aligns with and achieves the objectives of European and national policy.

"There is a palpable and pronounced shift towards embedding Knowledge Transfer disciplines in public research organisations"







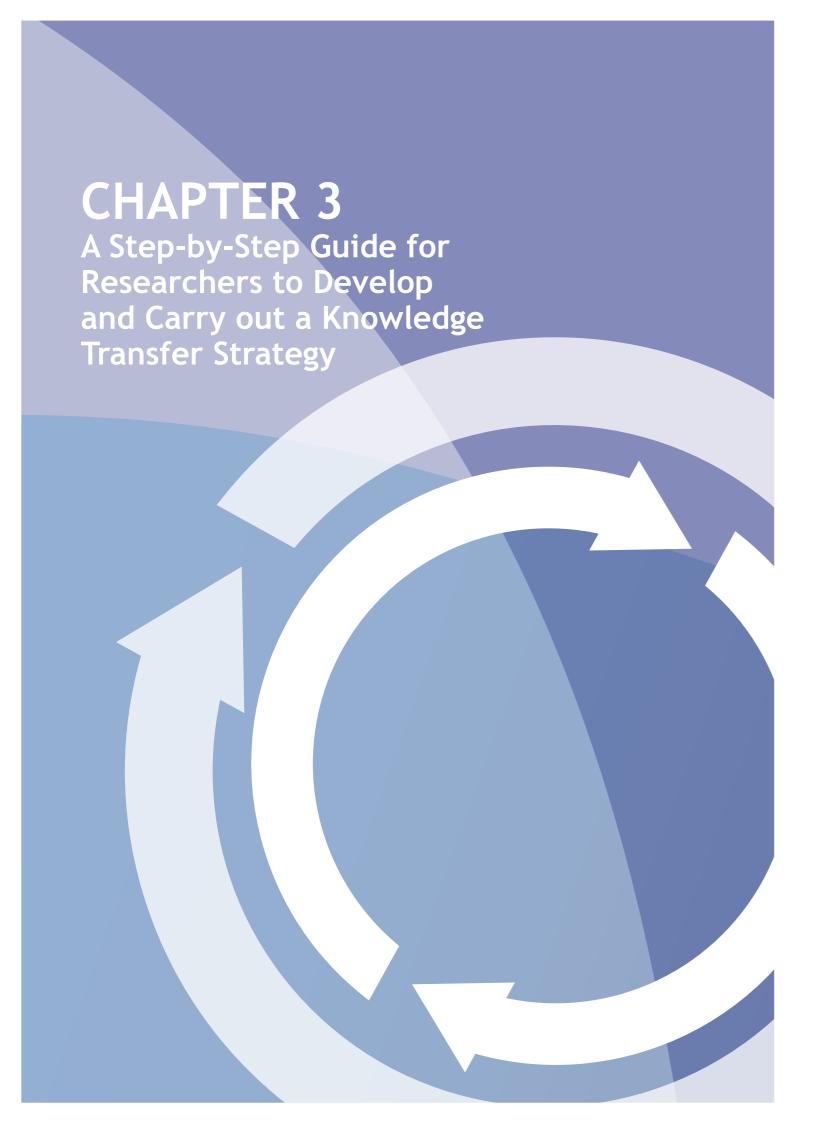






¹⁹ Lomas J. Connecting research and policy. Can J Policy Res. 2000;1:140-144

²⁰ Rist R.C., 'Influencing the Policy Process With Qualitative Research' in Denzin & Lincoln (eds) Collecting and Interpreting Qualitative Materials, Sage (2003).



CHAPTER 3: A STEP-BY-STEP GUIDE FOR RESEARCHERS TO DEVELOP AND CARRY OUT A KNOWLEDGE TRANSFER STRATEGY

Introduction

Developing and carrying out a Knowledge Transfer Strategy is a way of ensuring that you are strategic, coordinated and effective in transferring your knowledge to policy. This guide is intended to be a user-friendly resource for environmental researchers working in Ireland at any stage of their career.

As you work your way through this step-by-step guide, keep in mind the concept that researchers and policy-makers should be pursuing the same overarching goal: ensuring that decisions are made which benefit both society and the environment.

Research provides the policy-making community with the latest scientific evidence to inform their decisions. However, it is not the only reference source used in the policy-making process, thus the more you understand about the world of policy, the more effective you will become at contributing to the policy-making process.

It is important to always remember that policy-makers and researchers operate in different professional contexts with divergent frames of reference. They are subject to different pressures, have developed different traditions and follow different schedules. This can sometimes compromise the success of cooperation and communication activities between researchers and policy-makers.

Policy actors are present at the local, regional, national, international and global level, and are often working within very narrow areas of policy. This extensive network of policy actors and policy processes results in channels of communication being underdeveloped or fragmented, presenting significant challenges to carrying out an efficient Knowledge Transfer Strategy.

At the same time, new communication technology and techniques combined with a renewed dedication by senior policy-makers in Europe to communicate research for evidence-based policy-making, suggest that more resources will be invested to help ensure tangible value creation from environmental research investments. At a national level an example could be the EPA STRIVE programme that requires all projects to now allocate 2% of their budget to post-project dissemination activities. At an international level, the new European Commission Horizon 2020 programme (2014-20) is expected to allocate one third of all marks in applications to the expected "impact" of projects. As such most consortia now have specialist partners to help with Knowledge Management.

This guide is intended to help you ensure that the valuable knowledge you have generated is put into practice in a policy process by providing a systematic approach to your Knowledge Transfer efforts.







When should you use this guide?

This guide can be used in a variety of ways. It can be useful as a reference guide, providing you with an overview of good practice in Knowledge Transfer and highlighting important elements to consider.

It can also be used to help you with your funding applications for research projects. Every project needs to justify the value and potential impact of its research. By following these steps you can try to map out the potential applications of your research before you start. This will help you to sharpen your project design for impact and also to justify it to the evaluators.

It would be of maximum benefit to consider using this guide and starting to develop your Knowledge Transfer Strategy as early as possible in your research project to capitalise on opportunities to engage with policy. It will also help you understand what assistance and resources are potentially available and how to use them.

However, if you are near the end of, or have completed, your research project, this guide will take you through a step-by-step process to define and carry out a Knowledge Transfer Strategy.

Not all Knowledge Outputs (KO) will have policy relevance. You will need to use your own judgement as to whether there is a need to develop and carry out a targeted Knowledge Transfer Strategy to policy.

Please also note that whilst this guide is focused on science to policy, the process is suitable for any type of Knowledge Transfer as long as adaptations are made in steps 2 and 3 to help you identify your pathway to impact in other ways, e.g. commercial, academic, wider society, etc.



Overview

This step-by-step guide comprises five steps. The steps are progressive, however at each step we would recommend that you review the previous steps in light of new results and make adjustments if needed.



The Step-by-Step Guide has five steps:

- 1. Assess your Knowledge Describe your Knowledge Output(s).
- 2. Identify Policy and Target User(s) Identify the policy processes you want to target and identify your target user(s).
- 3. Profile Target User Understand the individual profile of your target user(s).
- 4. Develop a Knowledge Transfer Plan Checklist of important factors to develop a detailed transfer plan.
- 5. Carry out and Measure Carry out Knowledge Transfer actions and measure success.















Objectives of Step 1

At the end of this step you should be able to:

- ✓ Understand the concept of a Knowledge Output.
- ✓ Identify and characterise Knowledge Outputs from your research.

Before devising a Knowledge Transfer plan it is essential to have a proper in-depth and critical understanding of how your knowledge could be potentially relevant to policy. To help you do this, we have developed a Knowledge Output Template (KOT) which contains fields that can assist you to describe key information about each Knowledge Output (KO) coming out of your research project. This information will assist you in later steps.

As you complete the KOT, you should think about all the steps in your research project, not only de-novo knowledge that you would typically consider as suitable for an academic publication. Think back to your research methodologies, protocols, techniques and the resultant data sets and consider if any of them are new or have possible policy application.

Knowledge Output:

A Knowledge Output is a key learning generated by or through a research activity. Knowledge Outputs are not limited to de-novo or pioneering discoveries but may also include new methodologies/processes, adaptations, insights, alternative applications of prior know-how/knowledge.

Knowledge Outputs can vary significantly depending on your field of research and the scale of the project. It is hard to give strict rules on determining how many KOs you will have in your project. A KO could be one de-novo discovery. In other cases, it is a combination of information, data and interpretation that has led to an insight and thus, in this case, the KO is insight derived from several knowledge elements. It may take a few attempts to arrive at a final list of KOs for your project and you may need to move on to Step 2 with a draft list and return to Step 1 later to make adjustments.

At this stage we recommend listing all your KOs regardless of whether or not you consider them to have a policy application. You can decide this in Step 2. You may find that KOs from your research also have a potential industry application (adaptation, mitigation or commercialisation).

Knowledge Output Template (KOT)

Instructions: Use one template for each Knowledge Output in your research project

Note: It can be a good idea to get others to review your draft KO templates. A peer or supervisor could help identify KOs that you had not considered or suggest that some be combined or separated out. A friend or family member not familiar with your work could help to identify whether any of your fields are difficult to understand or are overly technical.

Template 1: Knowledge Output Template (KOT)



Full size template available in Annex 4











CHAPTER 3: A Step-by-Step Guide for Researchers

Summary of Step 1:

- Defining KOs arising from your research is a way to self-analyse and reflect on your hard work.
- Rather than focusing only on publishable knowledge, it also helps to assess whether you have other results which may have a potential application, e.g. methodologies, processes, by-products, etc.
- There are no steadfast rules for defining the amount of KOs you will have in your project. You may need to move on to Step 2 with a draft list and perhaps remove/merge KOs at a later stage.



Objectives of Step 2

At the end of this step you should be able to:

- ✓ Identify specific policy processes for which your knowledge is relevant.
- Determine the applicability of your knowledge in the existing policy timeframes.
- ✓ Identify the different actors who operate within your target policy process and when/how/where they interact.
- ✓ Identify specific target users for your knowledge and their application of it.

In Step 1 you identified the KOs of your project and completed a Knowledge Output Template (KOT) for each one. At this stage you may or may not be sure if your knowledge has a policy application. Step 2 will help you drill down and clarify how your knowledge could potentially be beneficial to policy.

Policy:

Policy (or public policy) can be defined as a system of laws, regulatory measures, courses of action, and funding priorities concerning a given topic promulgated by a government entity or its representatives

Your research project may have lasted three months or three years. Understanding its potential benefit on policy depends on several factors including: (i) the KO, (ii) the policy you are targeting, and (iii) the timeliness of your knowledge in relation to the policy process and the existing knowledge base.

If your knowledge is novel, then there may not be a relevant policy currently in progress. If this is the case you may need to consider how you can get the issue on the policy agenda.









Mapping the policy/policies relevant to your Knowledge Output

A good starting point is to first examine the specific policy/policies for which you think your Knowledge Output may have an application.

Examples of relevant environmental policies include:

- Waste Management (Amendment) Act 2001
- > Protection of the Environment Act 2003
- Industrial Emissions Directive (2010/75/EU)
- **▶** Environmental Liability Directive (2004/35/EC)
- EIA Directive (85/337/EEC as amended by 97/11/EC and 2003/35/EC)
- ➤ Water Framework Directive (Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000)
- → Habitats Directive (Council Directive 92/43/EEC of 21 May 1992)
- ➤ Waste Framework Directive (Directive 2008/98/EC)
- **▶** Bathing Waters (76/160/EEC)
- **▶** Urban Waste Water Treatment (91/271/EEC)
- **Nitrates** (91/676/EEC)
- Marine Strategy Framework Directive (Council Directive 2008/56/EC)
- Our Sustainable Future: A FRAMEWORK FOR SUSTAINABLE DEVELOPMENT FOR IRELAND (Towards 2016)
- > 'Actions for Biodiversity 2011-2016', Ireland's 2nd National Biodiversity Plan, launched on 9 November 2011
- National Development Plan 2007 2013
- EU Environmental Technology Action Plan (ETAP)
- National Strategy on Biodegradable Waste
- > Food Harvest 2020
- National Waste Prevention Programme (NWPP)
- > Healthy Ireland

In most cases there is a directive or plan in place and within it specific components describing what it encompasses (e.g. statutory instruments, articles, chapters, etc.). The more you understand about the policy you are targeting the better positioned you will be to find your target user. To find out more about environmental policies refer to Chapter 1.

Try to determine the most relevant policy and endeavor to find the aspect of that policy that is relevant to your Knowledge Output.

Policy Process

The different stages through which a policy can progress:

- Formulation: Identification of a problem and demand for government action, agenda setting, debate of policy proposals by various parties (e.g. Governmental Departments, think tanks, interest groups), legalisation of policy into law.
- Implementation: Setting up of systems to execute the different aspects specified within a policy.
- Monitoring and Enforcement: Carrying out the monitoring activities of the policy, ensuring that the systems put in place during implementation are enacted and are ensuring compliance with the policy.
- **Evaluation and Review:** Reporting on the results of the previous policy stages to ensure the most effective and efficient management of a policy.

For the specific policy which you believe to be most relevant to your KO, you need to determine several important factors that will inform your Knowledge Transfer Strategy. Consider what stage the policy is currently at, remembering that there may be overlap between the stages. Consider the mandated authorities and their delegated roles of responsibility in this policy. What are the current and future activities of this policy? Are there other actors that have an influence in this policy process?

Remember that when a policy is to be implemented, the responsibilities to ensure its execution are delegated by the Governmental Department with the authority given to it within the Act. The figure below shows the most prominent bodies associated with environmental policy in Ireland.











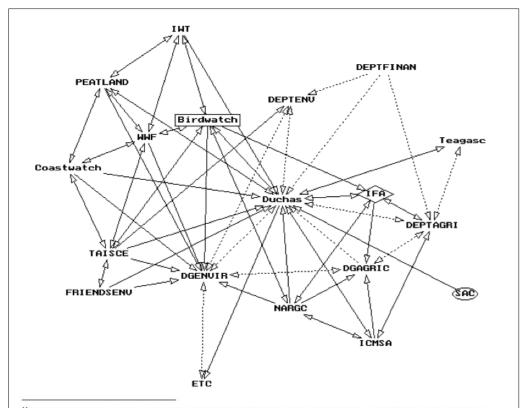




Researching answers to these questions will allow you to visualise a map of your chosen policy. At this stage it might be helpful if you visualise this knowledge. We refer to these visualisations as policy maps.

When developing your policy maps try and capture as many of its nuances as possible: relationships between the actors (formal and informal); timelines for policy activities; and the various organisational structures and methods of understanding the relevant departments or sectors within them.

Figure 4: Example of the Habitats Directive Map²¹



Habitats Implementation Network - EU level: DGENVIR= DG Environment, DGAGRIC= DG Agriculture; National level: Dúchas - national implementing body; DEPTENV= Department of the Environment and Local Government, DEPTAGRI= Department of Agriculture and Food, DEPTFINAN= Department of Finance, Teagasc= Irish Agriculture and Food Development Authority; NGOs: IFA= Irish Farmers Association, ICMSA= Irish Creamery and Milk Suppliers Association, SAC= SAC Alliance, Taisce= An Taisce (Irish Heritage Trust), FRIENDSENV= Friends of the Environment, Birdwatch= Birdwatch Ireland, IWT= Irish Wildlife Trust, Peatland= Irish Peatland Conservation Council, Coastwatch= Coastwatch Europe, NARCG= National Association of Regional Game Councils, WWF= World Wildlife Fund, ETC= European Topic Centre for Nature and Biodiversity.

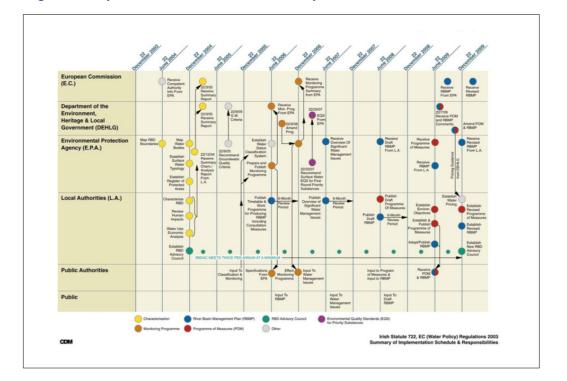
It might also be useful to map the interactions of the important players in relation to the activities and the timelines that are being carried out with your chosen policy. An example here could be the Water Framework directive and its implementation of the River Basin District Management plans. Figure 5 on the following page provides a summary of the implementation schedule and responsibilities arising from Statutory Instrument No. 722 of 2003.







Figure 5: Map of East River Basin District implementation.²²



In the context of environmental research, your KO contributing to policy may lead to eventual benefits such as:

- Resource conservation
- > Stopping a damaging human activity
- Implementing an adaptation/mitigation approach
- Changing public behaviour/attitude
- Providing a better understanding of an issue
- A change in monitoring, implementation, enforcement
- The adoption of a new technology or tool

Instruction: Complete a desk top study and/or use your network of contacts to fill in template 2A. Consider developing a policy map based on your results.

.

Note: Unless you have an excellent overview of the policy system and the actors within it, you will need to carry out background research to be able to sufficiently complete all fields. At this stage it is important to be realistic about the potential application of your knowledge. Ask yourself if you think your knowledge alone can have the policy impact you envisage: is it conclusive or does it require validation or further research to confirm your findings? Even if you strongly feel that more research is required, it can also be the case that you should transfer existing findings now. If your KO has no relevance to policy - consider a more traditional academic route for highlighting your findings.

Eastern River Basin District Project Final Background Policy, Legislation and Authorities Report 2011. http://www.wfdireland.ie/docs/32_Policy%20and%20Legislation%20Reports/ERBD%20Policy,%20 Legislation%20and%20Authorities%20-%20Main%20Report.pdf



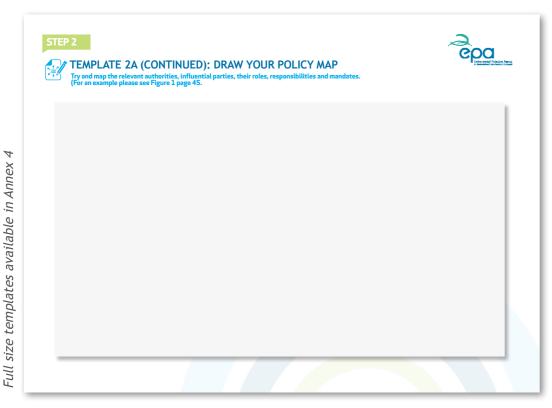




²¹ http://www.oeue.net/papers/ireland-implementationofthehab.pdf

Template 2A Policy Mapping





Let's review where we are: at this point you should have identified and projected a situation where your KO has positively affected policy, have identified your target policy, and have identified the current status for the policy and the key milestones that are due to occur in that stage.







2B: Identifying your Target User

Knowledge Output Pathway:

The process of mapping the series of steps, including actors and activities, connecting a researcher's Knowledge Output with its eventual benefit

Target User

Refers to the individual(s) who you have determined to be best placed to receive the Knowledge Output and enable its passage through the Knowledge Output Pathway (KOP) towards its eventual benefit

Now you need to bring it all together and map out a progressive pathway for your knowledge to travel along. The pathway is a series of points beginning with you and ending in achievement of its desired eventual benefit. We term this the Knowledge Output Pathway (KOP) and it is specific to the KO you are working on currently. Different KOs can have different KOPs. This exercise will allow you to identify the key policy actor(s) who are most likely to be your target user(s), and how they are likely to apply your knowledge, which will enable the KO to proceed towards a situation where it has a positive effect on policy.

Instruction: Complete a desk top study and/or use your network of contacts to fill in Template 2B.

Template 2B Identify your Target User

Field	Guidance	Answer
1. Who is the Target User(s) of your knowledge?	Do they have an in-depth understanding of the technical aspects of the subject, or is it a general overview?	
2. What is the Target-User Application?	What do you envisage your Target User will do with your knowledge?	
3. Application Benefit:	What would be your desired consequence from the uptake of your knowledge by your Target User? Don't think of the eventual benefit on policy, rather just the impact in terms of your Target User applying the knowledge.	My Target User took up my knowledge and based on it, they
Within the Policy you are targeting, can you identify any opportunities for interaction with policy actors?	Here you are trying to establish if there are any formal processes for interaction with policy actors. Face-to-face could include stakeholder consultations, expert committees, working groups etc. Other interactions could include official requests for expert opinions, contracts to provide assessments, etc.	

Full size template available in Annex 4



CHAPTER 3: A Step-by-Step Guide for Researchers

Note: Step 2 is probably the most difficult step for a researcher, as it requires you to frame your work within the policy context. However, this work is only provisional; you may find that as you move on to Step 3 new information will become clear that helps you to change some of your answers in Step 2. This is natural and part of the process as you start to become increasingly targeted in your efforts. It is unlikely that it will be your responsibility to take your KO all the way down the pathway. Most scientists are resource limited (time and budget) and thus you need to be very practical about what is possible, and do your best within these limitations. More about this is covered in Step 3 and Step 4.

Let's review where we are: at this point you should have identified and projected a situation where your KO has a positive effect on policy, identified the most relevant policy and its current status, and drafted a KOP that allowed you to identify your target user(s).

Summary of Step 2:

- It's important to narrow down your policy options as there are many individual connected or standalone policies that need to be considered.
- Mapping the actors, their involvement, responsibilities and activities will supply you with an important overview of your policy.
- ▶ Developing a KOP will enable you to identify your target user which will form the basis of your Knowledge Transfer Strategy.





PROFILE YOUR TARGET USER(S)

Objectives of Step 3

At the end of this step you should be able to:

- Understand your target user's mandate or responsibilities within the policy process.
- Consider their background knowledge, attitude and practice in relation to the issue.
- Understand their knowledge needs.
- ✓ Understand what/who may influence their decisions.
- **✔** Be aware of their preferred sources of information and knowledge.

Profile your Target User

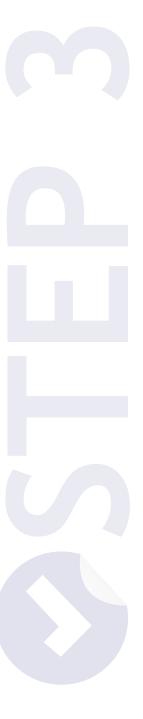
By completing Step 2, you have gained a good understanding of your target policy process and its current status. You will also have a good idea of the starting point of your KOP.

Who is the target user in the first step of your KOP? Is there only one, or are there several? Profiling your target user is a crucial step.

Consider what your target user will do with your KO so that it moves to the next stage along the KOP. Do you want him/her to assimilate it into an expert recommendation, or to pass it on to a decision maker, or test your product? The applications can be wide ranging.

Note: A target user should not be an organisation as a whole, if possible; rather it is the individuals within organisations who have specific mandates/responsibilities to carry out specific activities. Thus within a state body, government department, etc., you should try to identify the department and in turn the individual(s) that you want to target with your KO. You are targeting them because you believe they have a specific role/responsibility in which they should be using and applying your KO. At a national level, it may be the case that you are targeting only one individual (e.g. a public servant who acts as a scientific advisor). However, at a regional level there may be an individual in each region with the same mandate/responsibility, and therefore there are several target users (e.g. river basin managers).

You should list your target user(s), and if there are multiple target users, you should identify the most important ones. Ensure that you challenge yourself: are there truly









multiple target user(s) in your first step or is there a specific individual or group that could use your Knowledge Output?

You should try and profile each target user by:

- a. Knowledge What do they know about the subject?
- b. Attitudes What do they think about the subject?
- c. Practices What are they currently doing in relation to the subject?
- d. Role/Responsibility What is their role/responsibility in your identified policy?
- e. Information Sources Where do they get their current information/ knowledge?
- f. Information Conflicts Who else is influencing their decisions and understanding?
- g. Multipliers Are there other individuals, organisations, or bodies who could be used to maximise your connection?

By analysing and profiling your target user's needs you are giving yourself key background information to inform a successful Knowledge Transfer plan (Step 4).

You should repeat this exercise if you think there are multiple target users for your KO.

Instruction: Complete a desk top study and/or use your network of contacts to fill in template 3.

Note: When carrying out your profiling, in addition to direct interactions with policy actors, also consider sources that are non-intrusive, e.g. LinkedIn groups, environmental events, personal blogs, etc.

Let's review where we are: at this point you should have developed an in-depth and comprehensive profile of your target user(s) that contains as much professional and personal information that you can obtain to help you understand how to develop a Knowledge Transfer plan that is customised to them.







Template 3: Profile your Target User



Full size template available in Annex 4

Summary of Step 3:

- It's important to identify the target user in the policy process who is most appropriate to receive your knowledge.
- You should have a clear idea of what your target user is likely to do with your knowledge.
- You should source and compile specific information on your target user that will allow you to customise your Knowledge Transfer plan in Steps 4 & 5.



DEVELOP PLAN: CREATE A DETAILED KNOWLEDGE TRANSFER PLAN

Objectives of Step 4

At the end of this step you should be able to:

- ✓ Select appropriate communication channels, materials and tools based on the profile of your target user.
- ✓ Design a targeted Knowledge Transfer Plan that is in line with your own resources.
- **✓** Understand how to carry out Knowledge Transfer.

By this stage you should have mapped your KOP, identified the target user of the KO, and their intended application of it. Now you need to design a tailor-made Knowledge Transfer Plan to ensure uptake and application.

In this step you need to combine your KO with your target user. It is important to prioritise what you want to convey; try to keep it simple and direct initially, as you can follow-up with technical detail later.

When developing your KT Plan, there are several elements you must consider:

- **▶** MESSAGE
- **COMMUNICATION CHANNEL**
- **TIME**
- **>** RESOURCES
- > EXTERNAL SUPPORT AND CHANNELS
- **TESTING**

These elements are closely linked and by carefully considering them you will be able to develop a customised KT Plan to transfer your KO to your target user resulting in uptake.

Message

Your message needs to be relevant to your target user(s); this is why profiling is so important. You need to develop a message that addresses your target user's needs. Sometimes it is useful to approach the message like you are trying to sell your knowledge just like a product. What are the benefits and selling points?

Also consider their job/role/mandate, their interests, their motivations, incentives or metrics for reward.

- Consider the technical level, depth of information needed, the style and language used (don't give a scientific paper to a layperson, don't give an outreach article to a scientific advisor to government).
- Their background knowledge of the issue.
- Their potential pre-conceived opinion of the issue.
- > Ways you can relate the knowledge to examples they are familiar with.
- The type of message they would want to receive policy options, recommendations, evidence to confirm their current stance, etc.

Communication channel

The words media and medium are often used to mean the same thing as communication channel. For the purposes of this guide, a communication channel is a medium through which a message is transmitted to its intended target user. There are a lot of different communication channels that exist: mass media, print, face-to-face, social media, training, etc.

The channel you choose to transfer your knowledge through must be based on your target user's profile. You must put yourself in the shoes of your knowledge customers. What do they need and how do they like to receive and assimilate knowledge?

The channel is also affected by the message. You will not be able to adequately convey highly-technical knowledge in a Twitter post or even on radio.

Channels that are able to reach a large number of users (mass media, social media, print products) are typically lower cost per user reached. They can be very effective if you are trying to raise awareness of a particular issue. On the other hand, channels targeting a small number of users are relatively expensive per user reached, but are usually more effective in changing behaviour of individuals. They are also more targeted and can enable interaction and feedback.

Consider if there are any existing science-to-policy channels that you could use? Are there specific forums, events or consultations taking place?













Sometimes the most effective Knowledge Transfer campaigns are where a combination of channels are used as part of a strategy. This can have several benefits:

- 1) It makes it possible to layer your knowledge, thereby firstly catching the attention of the target user and then providing in-depth material once you have their attention.
- 2) Where you have a mixed profile of target users, it allows you to give them the choice of their preferred channel to receive the same knowledge (e.g. if you were targeting health inspectors of varying ages and backgrounds, the older generation might like to receive a print report whereas the younger generation are happy to open it on their tablet or via a website).

You also should consider the limitations you have to work with. Your work to date has given you a good indication of the preferred channels and message for your target user. Unfortunately, it is unlikely that you have access to unlimited resources. Thus, you need to think creatively and choose the best option or combination of options based on your resources.

If your analysis has led to you having a choice of channels, then try and compare the cost vs. effectiveness of each channel by answering the following questions:

.

How many target users could you reach if you use the channel?

How much would it cost to use the channel?

How much time would it require from you?

Time

When you are developing your Knowledge Transfer Plan, time is a very important element, both from a policy perspective and also from your own. After Step 2, you will have a good idea of the policy you are targeting, what is happening and what needs to occur for the policy to be successful. Therefore, you should know the timelines for specific activities which you have decided are relevant to your KO. You need to consider what this means for your Knowledge Transfer Plan. For example, if you would like to have input in the upcoming review of the River Basin District Management plans in 2015 and you saw on the Water Framework Directive website that submissions open for six months until June 2014, then you know that you need to be organised before then. It is a good idea to have a personal timeline with milestones to be accomplished within your Knowledge Transfer Strategy.

Resources

Here you need to put your Knowledge Transfer Plan into perspective. As mentioned earlier, it is unlikely that you have access to all available resources without any limits. Resources aren't limited to monetary considerations; they also include personnel and temporal issues. You need to be realistic as to what you have available to you and therefore what you can accomplish. The biggest investment in effective Knowledge Transfer is time.

Consider seeking external advice as to the best way to either manage your current resources and/or obtain more support for knowledge transfer activities. Potential assistance could come from your institute, e.g. Technology Transfer Office or colleagues in your faculty or research team. You should also consider engaging with your funding body, which will be motivated to ensure that its projects have an impact.

External Support and Channels

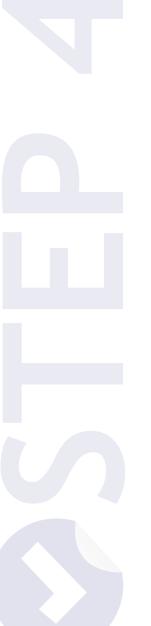
By carrying out the above steps you may realise you don't have enough resources to carry out your plan. You need to consider if any support exists for you to carry out Knowledge Transfer.

Policy makers do not make decisions in isolation; they take advice from other groups/ organisations. Consider the interlocutors that are working around your target policy (e.g. NGOs, lobby groups, public bodies). Do they have a mandate, or are they incentivised to help you transfer knowledge, perhaps through an existing channel/ mechanism for you to use (e.g. science-policy interfaces, publications, etc.)?

In some cases, you may need to get support for the application of your knowledge from your scientific peers, civil society organisations and/or the wider public. There are several different tools and methodologies available to use in a multi-stakeholder setting (please see the EPA Resource Kit series number TBC BRIDGE for an in-depth review).

Instructions: Review and consider each element in the Checklist for Knowledge Transfer Plan (Template 4A). Consider what you have discovered in the previous three steps. The answers you need should be located in your earlier templates, but you also might have missed something. Review and assess. Capture your plan in Template 4B.

Note: By this stage you should have everything to finalise your Knowledge Transfer Plan. Use Template 4 to assess and reassess if you are confident about all the elements. As you go through each section, make note of anything you are unsure of. After you have gone through each element, review your answers. If you are not sure about any part, go back to earlier steps in the process and review your previous work.











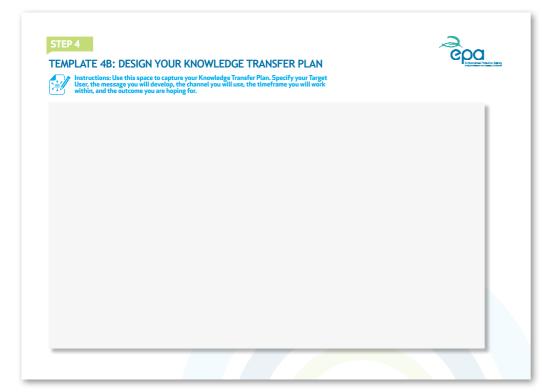




Template 4A: Checklist for a Knowledge Transfer plan



Template 4B: Design your Knowledge Transfer plan



Full size template available in Annex 4

Testing

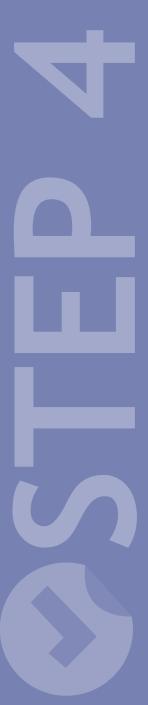
We would recommend that you test elements of your Knowledge Transfer Plan before fully implementing it. Right now it is a Knowledge Transfer plan based on the best information you could gather at the time. However, you may be missing some essential information that may affect your transfer success, e.g. elements of your profiling efforts may not be complete or perhaps you have misinterpreted the preferred communication channels for those you have profiled.

Testing elements of your Transfer Plan is not always going to be possible due to resource limitations. At a minimum, use whatever support you do have (colleagues, policy experts, communications experts, etc.) to get feedback on your plan, your activities and your communication products.

Let's review where we are: at this point you should have all the ingredients to carry out Knowledge Transfer to policy. You have a target user, a target policy, a projected situation where your KO has a positive effect on policy, and a profile of your target user. This information will enable you to decide on the individual aspects that make up a Knowledge Transfer Plan for your KO.

Summary of Step 4:

- You should identify the best Knowledge Transfer message, channel and time based on the analysis you have completed on your target user.
- ➤ Where possible, test elements of your Knowledge Transfer Plan on a smaller scale before fully implementing it.
- It's crucial that you determine what you can and cannot achieve.













CARRY OUT AND MEASURE - CARRY OUT KNOWLEDGE TRANSFER ACTIONS AND MEASURE SUCCESS

Objectives of Step 5

At the end of this step you should be able to:

- ✓ Realise if your Knowledge Transfer Plan and overall Knowledge Transfer Strategy was successful.
- ✓ Determine if your target user has taken on board and applied your knowledge.
- Understand the potential indicators you can use to determine if your Knowledge Transfer plan has increased the likelihood of the projected situation where your KO has a positive effect on policy being achieved.

Carry out Knowledge Transfer to Policy

This step is about implementing your plan. From Step 2 you will have a target user in mind as well as a particular aspect of your identified policy. At this stage you will also have an end point in mind, the projected situation where your KO has a positive effect on policy. You understand the profile of your target user (Step 3), and have considered how this affects the ways and means you should approach the target user with your KO. At the end of Step 4 you will have gone through the most important elements in a Knowledge Transfer Plan and determined what you are going to do.

Now, it is time to put all your hard work into action. Develop any materials you might need, double check your communication channels and ensure that it is a good time to make your move.

It is a good idea to continually monitor your plan to ensure you manage your work effectively. Continually assess risk and, if necessary, be prepared to adapt your plan. Make sure your plan has feedback mechanisms built in, so that you receive information as to whether or not you are successfully transferring knowledge. See the rest of Step 5 for more information.

Measure effectiveness

Evaluating the success of your Knowledge Transfer activities is a very important part of the process. Depending on your knowledge and its application, you may or may not have transferred your knowledge through its KOP to achieve the projected situation where your KO has a positive effect on policy.

Thus, this step is broken down into three parts:

- 1. Measure the successful uptake by your target user.
- 2. Assess the application of the knowledge by your target user.
- 3. Indicators to suggest impact through the Knowledge Output Pathway (KOP).

1. Measure the successful uptake by your target user

Measuring the successful completion of Knowledge Transfer activities can be done using both quantitative and qualitative measures. Usually a combination of both will help you assess if your transfer was successful and uptake has taken place.

Tip: Try and link quantitative measures to specific messages that you transferred during a transfer activity. Examples:

- Number of people attending an event.
- Number of people downloading a product/tool/resource.
- Number of visitors to a web link, blog or forum after a promotional activity has occurred.
- Any examination/test to assess acquisition of competence, knowledge or skills.
- > Feedback survey/questionnaire.
- > One-to-one feedback after the activity.
- Official follow-up from activity.
- Informal feedback.
- Any request for additional information.

2. Assess the application of the knowledge by your target user

Just because you have transferred knowledge does not mean it has been applied. Even if a target user said they would use the knowledge does not mean that they actually did. Thus, it is important to try and assess if the activity had the intended result. Consider how you envisaged your target user would apply your Knowledge Output and then try and select metrics that can help assess if the application has taken place.















What if I discover that there was no application of my KO by my target user?

If you find that your target user has taken up your knowledge but not applied it at all or has applied it in a different way than you wanted, then you may need to review elements of your Knowledge Transfer Plan and assess if any changes are needed.

- Review the qualitative and quantitative feedback.
- Did you identify the correct target user? Did you miss anything in their profile?
- Did you select the correct channel, message?
- Are there other barriers in the system preventing the target user from applying your knowledge in the way you consider most effective?
- Was the application you had in mind for your target user realistic?

Depending on your resources and time availability, you may need to go back a few steps and see if there is anything you might have missed or not foreseen. You may need to try an alternative transfer activity (resources permitting).

3. Indicators to suggest impact through the Knowledge Output Pathway (KOP)

Previous steps have acknowledged that you do not have unlimited time and resources to ensure that your knowledge goes all the way down the KOP to achieve eventual impact on your targeted policy process. Therefore, you have selected suitable target users in the KOP and carried out transfer activities to try and ensure uptake and application. At this point you should consider possible indicators in the KOP that demonstrate that your knowledge is moving along the pathway. The indicators you choose are specific to your knowledge and policy benefit. The more you understand your KOP, the better you will be able to select suitable indicators.

Possible indicators that could suggest your knowledge is moving along the KOP include:

- References to your knowledge (e.g. in policy documents or recommendations, speeches, debates, state of the art reports or policy briefs).
- The uptake and application of your knowledge by other policy actors (interlocutors, NGOs, lobby groups, politicians).

- References to your Knowledge Output in other forums within the policy process (e.g. Science Policy Interfaces, advisory groups, public consultations, etc.).
- Any pilots or additional funded research that seeks to validate your knowledge before application (e.g. in environmental monitoring programmes).
- Recommended changes in policy based on your research evidence.
- > Statutory changes to legislation based on your Knowledge Output.

Template 5: Measuring the Success of Transfer

Eqs TEMPLATE 5: MEASURING THE EFFECTIVENESS OF TRANSFER Full size template available in Annex 4

your measurement activities.

Let's review where we are: at this point you should have carried out the Knowledge Transfer P lan for your knowledge output and measured its effectiveness.

Instructions: Use Template 5 to capture the qualitative and quantitative data from

Note: The benefits of measuring the specific value that your research has had can be

wide-ranging. From a personal point of view, it can help you in prospective research

proposals and perhaps in obtaining funding for future projects. It is worth while

considering different systems and methods to demonstrate the effects of your

Knowledge Transfer Plan and therefore also that of your KO.

Summary of Step 5:

> Evaluating the effectiveness of your Knowledge Transfer activities is a very important step. Being able to demonstrate successful transfer, uptake and, if possible, the eventual positive effect, is an essential element of any Knowledge Transfer Plan. It will help you to demonstrate to funders that you took the task seriously, that you were impact focused and if necessary you adapted your strategy to ensure success.







ANNEX 1: WATER FRAMEWORK DIRECTIVE POLICY TIMELINE: FORMULATION

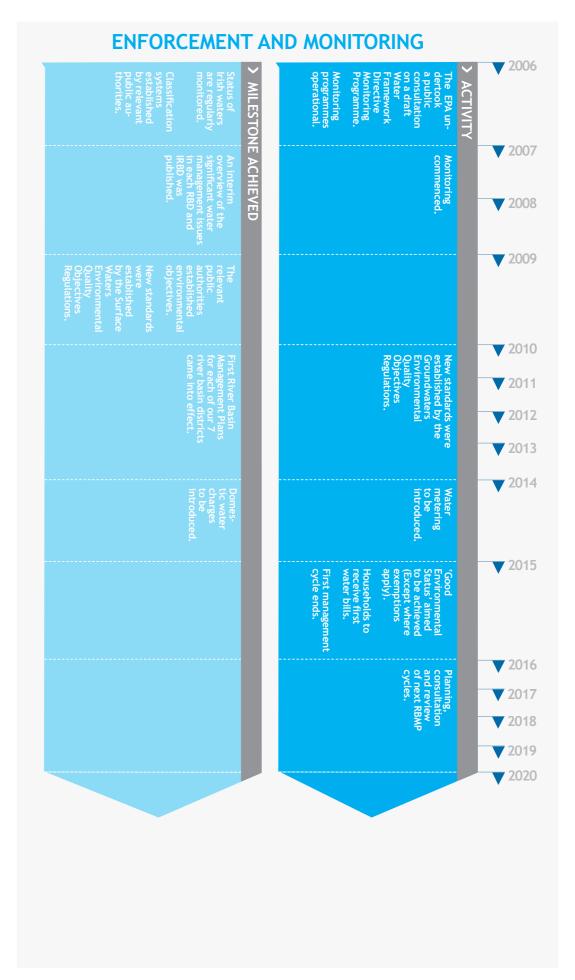




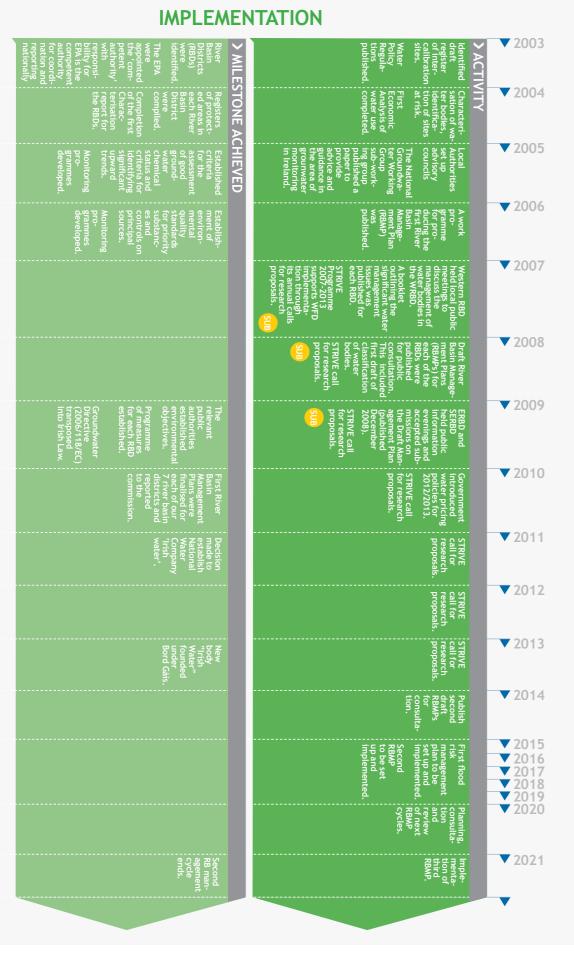




ANNEX 1: WATER FRAMEWORK DIRECTIVE POLICY TIMELINE: ENFORCEMENT AND MONITORING



ANNEX 1: WATER FRAMEWORK DIRECTIVE POLICY TIMELINE: IMPLEMENTATION









REVIEW 004 005 006 007 008 ▼ 2009 010 012 013 014 ▼ 2015 016 017 018 019 020 021

ANNEX 2: LIST OF CURRENT GOVERNMENT DEPARTMENTS, **MINISTERS AND WEBSITES 2013**

Department of State	Current Minister	Website	Bodies under the aegis of the Department
Environment, Community and Local Government	Alan Kelly	www.environ.ie	 An Bord Pleanála Environment Protection Agency Housing Finance Agency Housing and Sustainable Communities Agency Irish Water Safety Local Government Management Agency National Traveller Consultative Committee Private Residential Tenancies Board Radiological Protection Institute of Ireland Western Development Commission Pobal Met Éireann
Agriculture, Food and the Marine	Simon Coveney	www.agriculture.gov.ie	 Agriculture Appeals Office Animal Health Ireland BIM Bord Bia - Beef Quality Information Bord Bia - The Irish Food Board COFORD Coillte Farm Animal Welfare Advisory Council Marine Institute National Stud Pesticide Control Service (PCS) Sea-Fisheries Protection Authority (SFPA) Teagasc
Communications, Energy and Natural Resources	Alex White	www.dcenr.gov.ie	 Electricity Supply Board (E.S.B.) Bord Gais Eireann (The Irish Gas Board) Sustainable Energy Authority of Ireland Bord na Móna plc EirGrid An Post Inland Fisheries Lough agencies Geological Survey Of Ireland (GSI)



ANNEX 1: WATER FRAMEWORK DIRECTIVE

POLICY

TIMELINE: REVIEW





ANNEX 2: LIST OF CURRENT GOVERNMENT DEPARTMENTS, MINISTERS AND WEBSITES 2013 Cont.

Department of State	Current Minister	Website	Bodies under the aegis of the Department
Arts, Heritage and the Gaeltacht	Heather Humphreys	www.ahg.gov.ie	 An Coimisinéir Teanga Arts Council Chester Beatty Library Crawford Gallery
			 Foras na Gaeilge and www.gaeilge.ie Heritage Council Irish Film Board Irish Manuscripts Commission Irish Museum of Modern Art Marsh's Library National Archives National Concert Hall National Gallery of Ireland National Library of Ireland National Museum of Ireland Notice Nature National Parks and Wildlife Service Tha Boord o Ulstèr-Scotch Údarás na Gaeltachta Waterways Ireland Placenames Database of Ireland

ANNEX 3: LIST OF MAIN ENVIRONMENTAL NGOs IN IRELAND 2013

Name	Short Description	Website
An Taisce:	An environmental charity with a focus on conserving Ireland's built and natural heritage.	www.antaisce.org
Bat Conservation Ireland	A charity dedicated to the conservation of Ireland's bats.	www.batconservationireland. org
Birdwatch Ireland	Conserving birds and biodiversity.	www.birdwatchireland.ie
Coomhola Salmon Trust	Advocates for the creation of greater awareness and public participation in the efforts to see more enlightened management of landscapes and aquatic resources.	
Coastwatch Ireland	Planning, protection and management of Ireland's coastal zones.	www.coastwatch.org
ECO-UNESCO	Ireland's environmental education and youth organisation.	www.ecounesco.ie
Friends of the Irish Environment	A network dedicated to protecting Ireland's environment.	www.friendsoftheirishenvi- ronment.org
The Hedge laying Association of Ireland	Promotes good management and conservation of hedgerows.	www.hedgelaying.ie
CELT - Centre for Ecological Living & Training	A community group and registered charity that organises environmental and traditional skills courses.	www.celtnet.org
Curlew Trust (the golden eagle trust)	A registered charity dedicated to the conservation and restoration of Ireland's native birds and their habitats, in particular declining, threatened, and extinct species.	www.goldeneagle.ie
Crann	A membership-based, non-profit registered charity, voluntary tree organisation dedicated to the promotion and protection of our trees, hedgerows and woodlands.	www.crann.ie
Feasta	Aims to identify the characteristics (economic, cultural and environmental) of a truly sustainable society, articulate how the necessary transition can be effected and promote the implementation of the measures required for this purpose.	www.feasta.org













ANNEX 3: List Of Main Environmental NGOs In Ireland 2013

ANNEX 3: List Of Main Environmental NGOs In Ireland 2013

ANNEX 3: LIST OF MAIN ENVIRONMENTAL NGOs IN IRELAND 2013 Cont.

Name	Short Description	Website
Forest Friends	Advocates for Ireland's forests because of their essential role in maintaining the fragile ecosystems which preserve the Earth's rich biological and cultural diversity.	www.forestfriends.ie
Friends of the Earth	Campaigns for environmental justice and sustainability.	www.foe.ie
Global Action Plan	Encourages, promotes, co-ordinates, participates and assists in sustainable development throughout Ireland through the development of community led projects that educate the public and increase the public awareness and understanding of social, economic and environmental issues with a view to promoting the cultural welfare of their area and to include the empowerment of specific groups to effectively participate in a programme of personal development.	www.globalactionplan.ie
Gluaiseacht	A non-hierarchical environmental and social justice movement bringing together grassroots organisations, concerned individuals and student groups from all over Ireland to raise awareness and take non-violent direct action on social, environmental and political issues.	www.gluaiseacht.ie
Irish Environmental Network (IEN)	Represents to government the capacity building and funding needs of its member organisations, all of whom are involved in one way or another in the well-being, protection and enhancement of the environment.	www.ien.ie
Irish Water and Fish Preservation Society	To raise awareness of issues with water quality on the rivers and lakes within the Shannon region and to highlight the deteriorating position in regard to pollution and water enrichment through reporting and monitoring.	www.fishingforall.com
Irish Doctors' Environmental Association	IDEA partners with a wide range of national and international organisations to encourage radical analysis catalyse change and foster cooperation towards a sustainable future for humanity and the planet.	www.ideaireland.org
Irish Natural Forestry Foundation	Campaign for a robust, inclusive and sustainable forestry programme. It campaigns for mixed species broadleaf forests, cognisant of the need for a commercial return, while protecting biodiversity.	www.inff.ie







ANNEX 3: LIST OF MAIN ENVIRONMENTAL NGOs IN IRELAND 2013 Cont.

Name	Short Description	Website
Irish Peatland Conservation Council	An independent conservation organisation founded in 1982. Involved in projects to conserve peatland heritage all over Ireland.	www.ipcc.ie
Irish Seal Sanctuary	Involved in the protection of Irish seals through education, promotion and raising awareness.	www.irishsealsanctuary.ie
Irish Seed Saver Association	Conservation of Irish grain.	www.irishseedsavers.ie
Irish Whale and Dolphin Group	Dedicated to the conservation and better understanding of whales, dolphins and porpoise in Irish waters.	www.iwdg.ie
Irish Wildlife Trust	A conservation charity committed to raising awareness of Ireland's rich. natural heritage and protecting it for future generations.	www.iwt.ie
Just Forests	A charity organisation founded in response to the trade in tropical timber and the resulting decline of global forests.	www.justforests.org
Native Woodland Trust	Non-Governmental Organisation (NGO) and registered Irish charity dedicated to the preservation of Ireland's ancient woodlands and to the planting of new trees and woods all over Ireland.	www.nativewoodlandtrust.ie
SWAN	An umbrella network of twenty-five of Ireland's leading environmental groups working together to protect Ireland's waters by participating in the implementation of the EU Water Framework Directive (WFD) in Ireland.	www.swanireland.ie
The Organic Centre	Promoting organic horticulture, gardening and sustainable living, through training, demonstration & community projects.	www.theorganiccentre.ie
VOICE	A non-governmental charity established in 1997 following the withdrawal of Greenpeace Ireland. Initially VOICE took on a mandate of water quality issues but this mandate extended to include climate change issues, water, waste management and forestry.	www.voiceireland.org
Zero waste alliance Ireland	An alliance working to deliver a prosperous and inclusive future without waste.	www.zerowaste.org







STEP 2

TEMPLATE 2A: POLICY MAPPING



4. Suggest potential eventual benefits resulting from the contribution of your KO to the identified policy.	3. Who are the designated mandated authorities with specific roles/responsibilities in the stage you are targeting and what are their roles?	2. What are the key activities/ milestones that are expected to be achieved within the Policy?	1. Identify the specific Policy for which your Knowledge Output has a potential application?	Field
	Here you are trying to identify all government departments, state agencies or other bodies who have been given a specific role/responsibility in ensuring the policy progresses to the next stage.	These could be diverse depending on the policy and the stage in its process (e.g. key decisions, initial assessments, characterisations, etc.).	Try to determine a particular policy where your Knowledge Output has relevance. Examples of Policy: Implementation of Water Framework Directive, Habitats Directive, Groundwater Directive, Bathing Water Directive, Marine Strategy Framework Directive, Nitrates Directive. Development of National Plans, e.g., National Biodiversity Plan, National Sustainability Plan, National Development Plan, etc.	Guidance
	1. Name: Role/Responsibility: 2. Name: Role/Responsibility: 3. Name: Role/Responsibility:			Answer

(2)

ANNEX 4: FULLSIZE TEMPLATES

STEP 1

TEMPLATE 1: KNOWLEDGE OUTPUT TEMPLATE (KOT) Instructions: for each individual KO you will need to use a separate set of templates.

Field	Guidance
1. Knowledge Output Title:	Provide a clear title that is understandable to a non-expert (one sentence).
2. Knowledge Output Description:	Try to give a comprehensive description, making the Knowledge Output fully understandable to a non-expert.
3. Type of Knowledge Output:	This field is useful to prompt you to consider what type of Knowledge Output you have. KO types include (but are not limited to): de-novo Knowledge, novel technology, novel process, RTD methodology, report/study/review, case study, conceptual model, guidelines/standards, training activity/learning module, software/modelling tools, product, prototype, services/tools, other (if other is chosen, please try to clarify)
4. What is the Knowledge Output Status?	It is vital to determine the status of the knowledge as not all research Knowledge Outputs are ready for uptake and application. Consider: Is your knowledge conclusive enough that it provides sufficient evidence to make an impact on a particular aspect of policy? Is there a corroborating body of evidence or contradicting results available? Does your knowledge progress beyond the current state of the art/evidence base? Is more research or demonstration needed to validate the results?

STEP 2

TEMPLATE 2B: IDENTIFY YOUR TARGET USER



4. Within the Policy you are targeting, can you identify any opportunities for interaction with policy actors?	3. Application Benefit:	2. What is the Target-User Application?	1. Who is the Target User(s) of your knowledge?	Field
Here you are trying to establish if there are any formal processes for interaction with policy actors. Face-to-face could include stakeholder consultations, expert committees/working groups etc. Other interactions could include official requests for expert opinions, contracts to provide assessments, etc.	What would be your desired consequence from the uptake of your knowledge by your Target User? Don't think of the eventual benefit on policy, rather just the impact in terms of your Target User applying the knowledge.	What do you envisage your Target User will do with your knowledge?	Do they have an in-depth understanding of the technical aspects of the subject, or is it a general overview?	Guidance
	My Target User took up my knowledge and based on it, they			Answer

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ANNEX 4: FULLSIZE TEMPLATES

STEP 2

TEMPLATE 2A (CONTINUED): DRAW YOUR POLICY MAP

Try and map the relevant authorities, influential parties, their roles, responsibilities and mandates. (For an example please see Figure 1 page 45.





TEMPLATE 4A: CHECKLIST FOR KNOWLEDGE TRANSFER PLAN



Consider MESSAGE Formulate the type and content of your message.	Suidance Your message needs to be relevant to your Target User, hence why the profiling is so important. You need to develop a message that addresses your Target User(s) needs and is something they can use. What are the benefits and selling points?	Notes
(Type can be Policy option, challenge to current policy, confirmation of policy)	Also consider their job role/mandate, their interests, their motivations, incentives or metrics for reward. In the case of a politician consider who they represent and their party philosophy.	
CHANNEL Chose which communication channel best suited for your message.	The channel you choose to transfer your knowledge must be based on your Target User(s) profile. You must put yourself in the shoes of your knowledge customers. What do they need and how do they like to receive and assimilate knowledge?	
(Channel can be newsletter, email, twitter, face-to-face, conference)	There are a lot of different communication channels that exist, mass media, print, face-to-face, social media, training etc.	
TIME Define a list of actions for implementing your KTPlan.	Within the policy process that you mapped out in Step 2, what is your timeframe for transferring your knowledge to your Target Users? Is there an activity you should be targeting? Be aware that there may be a limited policy window that you can use.	
	Consider creating a personal timeline with deadlines and milestones, assign responsibilities.	
RESOURCES How much budget is available to spend? Have you access to other facilities needed? Have you the time required to carry out	Channels that are able to reach large audiences (mass media, social media, print products) are typically lower cost per user reached. They can be very effective if you are trying to raise awareness of a particular issue. On the other hand, channels targeting small audiences are relatively expensive per user reached but can be more effective, they are also more targeted and can enable interaction and feedback.	
your actions?	Consider if there are any existing Science to Policy channels that you could use? Are there specific forums, events, consultations taking place?	
EXTERNAL SUPPORT Do you need to review or get validation on	Consider asking a colleague for advice on the policy mapping and user profiling which you are basing your strategy on. You might receive some extra bit of knowledge that would help you.	
your strategy:	Engage with other actors in the same arena? E.G. related interest groups or NGOs.	

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ANNEX 4: FULLSIZE TEMPLATES

STEP 3

TEMPLATE 3: PROFILE TARGET USER

7. Multipliers: Are there other individuals, organisations or bodies who could be used to maximise your connection with your Target User?	6. Information conflicts: Who else is influencing their decisions and understandings?	5. Information sources: Where do they currently get their information/knowledge?	4. What is their role/responsibility in your identified policy process?	3. What are they currently doing about it? (Practice)?	2. What do they think about the subject? (Attitudes)?	1. What do they know about the subject? (Knowledge)?	Field
Is your Target User in contact with/more amenable to any other groups, experts, NGOs etc that you could access to inform your Target User?	Do they have to consider other aspects like economic value or other industries like agriculture?	Are they influenced by Media? Do they attend many scientific conferences/debates? If they are on Social media, do they participate in particular groups?	What are they mandated/obliged to achieve? E.g. setting up a management system, decreasing pollution levels in groundwater	Are they actively seeking advice/other options, are they opposing change?	Do they believe that current practices could be improved, do they be believe that tradition is more important than progress?	Do they have an in-depth understanding of the technical aspects of the subject, or is it a general overview?	Guidance
							Answer

TEMPLATE 5: MEASURING THE EFFECTIVENESS OF TRANSFER



3. Indicators to suggest progress of know your knowledge. Hyour knowledge. e.g. in the control of the control	2. Assess the application of the knowledge by your Target User(s). Knowledge by your Target User(s). You Target	1. Measure the successful uptake of the knowledge by your Target User(s). knowledge by your Target User(s). mea	Consider Gu
If your Target User is not the ultimate beneficiary of your knowledge, try to suggest possible milestones that indicate that your knowledge is being used in your identified policy e.g. is it being referenced, are there pilots, interest in validating your knowledge.	Understanding the benefit of your Target User taking your knowledge can depend on your Knowledge Output Pathway, were you looking for changes in knowledge, attitude or behaviour in your Target User.	Measuring the successful completion of knowledge transfer activities can be done using both quantitative and qualitative measures e.g. number of people attending an event, number of downloads of a product/tool/resource.	Guidance
			Notes

ANNEX 4: FULLSIZE TEMPLATES

TEMPLATE 4B: DESIGN YOUR KNOWLEDGE TRANSFER PLAN







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