



REVIEW OF IMPLEMENTATION OF IP POLICIES WITHIN HIGHER EDUCATION INSTITUTIONS

**Status of implementation of the minimum requirements for an IP
commercialisation policy within Higher Education Institutions in Ireland**

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About IP Pragmatics Limited

IP Pragmatics (www.ip-pragmatics.com) helps our clients to create, progress and realise value from their intellectual property assets through the provision of integrated commercialisation and intellectual property management services. We are a specialist IP and technology management consultancy which combines intellectual property, technical and commercial expertise with a practical and pragmatic approach.

Working in technology transfer for over 20 years, IP Pragmatics is a trusted, independent partner to universities, research institutes, public sector organisations and companies in over 20 countries. Our team of experienced ex-industry, university TT and IP specialists has active global industry networks and contacts. We use this collective expertise alongside extensive market, IP and scientific information resources, to provide analytical rigour and practical insights.

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1 EXECUTIVE SUMMARY

In February 2018 the Higher Education Authority (HEA) and Knowledge Transfer Ireland (KTI) published the report and recommendations of their rolling review of intellectual property (IP) policies and their implementation, and the management of conflicts of interest in respect of IP commercialisation within Higher Education Institutions (HEIs) in Ireland. In May 2018, following the outputs of a working group, the HEA requested that HEIs should incorporate detailed minimum requirements arising from the review into their policy for IP Commercialisation.

In January 2019 an updated version of the National IP Protocol was published, which included the National IP Management Requirements which should be adopted by all Research Performing Organisations (RPOs) in Ireland. This brought into one publicly available document the recommendations from the HEA on IP commercialisation policy. Requirement 1 of these National IP Management Requirements is that each HEI must *“Adopt and disseminate a policy for IP commercialisation that includes the Minimum Requirements for an IP commercialisation policy”*. Further details about these minimum requirements are provided in the associated IP Protocol Resource Guide.

This report reviews the status of implementation by HEIs of this Requirement 1 as at October 2020, in line with the terms of reference given in Appendix 1. The report considers the availability and currency of the IP Commercialisation Policies of all 22 HEA institutions, and gives an in-depth analysis of the implementation of each of the minimum requirements by a sample of 8 HEIs. In addition, the report gives an overview of where and how reference is made to IP policy and Conflicts of Interest policy in the three Codes of Governance of the HEI sectors.

KEY FINDINGS

There is now good accessibility of IP Policies; the vast majority (91%) of the 22 HEIs studied have an IP policy on their public website, up from 77% at the time of the previous rolling review undertaken in 2017. This is a positive step, although some are still not easy to identify on the websites, and in some cases outdated policies can also still be found.

Sixteen (76%) of the 21 HEIs with published IP policies have reviewed or updated their policy since the request to do so was issued by the HEA in May 2018. Four HEIs reacted quickly to review/update their policies, and another 12 of these HEIs have done so since the introduction of the National IP Protocol 2019, half of which were approved within 6 months of its publication. Five HEIs appear not to have reviewed or updated their policy since May 2018. At least one of these HEIs is in the final process of approving a new IP policy, and some other policies are missing the date of the latest review, making it difficult to establish accurately whether they have been reviewed more recently. In line with the terms of reference, the data for this part of the review used publicly available information, and was not checked with the individual HEIs.

The overall picture has improved significantly since the previous rolling review was published in 2018, although the terms of reference for this report do not include a direct comparison with the previous findings. The most important aspects are now generally well covered by most of the HEIs in the sample studied, including IP ownership, responsibilities, revenue-sharing, the fundamentals of decision-making, dispute resolution and conflicts of interest. Spin-out company creation and approval and issues relating to equity shares in spin-outs are also pretty well covered in the sample organisations.

The eight HEIs reviewed generally cover around 70-80% of the requirements fully, with others at least partially covered, but none of the HEIs in the sample studied are fully compliant with all the requirements. Some of the requirements, which have consistently lower levels of compliance across this sample include basic policy document management information, providing certain details of how decisions are made, particularly with respect to management of spin-out equity, sale of shares and assignment of IP; and coverage of some of the less common IP management situations.

The National IP Management Requirements give guidance on the elements to be included within the policy, but do not dictate either the precise wording to be used, or the approach that is to be taken to certain aspects of policy, leaving this to the individual HEI to develop in a way which is consistent with their local governance and practice. The HEIs in this sample take different approaches to certain aspects of IP management, which is appropriate, and generally the approach taken is clear and suitable for the local situation.

In some instances, it appears that the minimum requirements laid out in the National IP Protocol may be ambiguous, leading to difficulties in implementation within the IP Policies studied.

The Codes of Governance for HEIs in Ireland are wide-ranging documents, and as would be expected they do not contain specific guidance relating to IP commercialisation. All of the three Codes of Governance explicitly mention non-disclosure of confidential information and conflict of interest procedures for staff, which are also relevant in the context of IP commercialisation. The Codes for the IoT and TUD also include a provision for compliance with the HEI IP policy within their outline Code of Conduct for staff. The Institutes of Technology's code specifically states that the provisions relating to the disposal of state assets should not apply in the case of IP disposals, which should instead be governed by each organisation's IP policy. This is helpful to avoid the imposition of impractical approaches.

RECOMMENDATIONS FOR HEIs

- All HEIs should ensure that they have an IP Policy, which is well signposted on their public websites, with clearly visible dates of adoption and latest review.
- Any HEIs which have not reviewed or updated their IP Policies since May 2018 should do so as a matter of urgency.
- At their next scheduled review date, all HEIs should carefully review their IP Policy again against the Minimum Requirements laid out in the National IP Protocol, because our sample shows that even where the policies have been recently updated, they still do not fully comply with the guidelines. Particular attention should be paid to:
 - basic document management information;
 - details of how decisions are made, particularly with respect to management of spin-out equity, sale of shares and assignment of IP;
 - ensuring that less common IP management situations are mentioned.
 - reference to their relevant Code of Governance, elaborating in particular on how the provisions relating to disposal of state assets will be applied in the case of the sale of spin-out equity and/or assignment of IP.

RECOMMENDATIONS FOR KTI

- Further clarification and guidance may be helpful for some of the minimum requirements in the Protocol which appear to be less well understood, including the reference to statutory provisions, as well as clarification of what is meant by “early” in specific situations.

RECOMMENDATIONS FOR HEA

- Follow up with the relevant HEIs on the specific issues raised by the gap analysis for the 8 HEIs studied in depth, with the support of KTI as appropriate.

2 INTRODUCTION

The Higher Education Authority (HEA) oversees governance and accountability within Higher Education Institutions (HEIs) in Ireland. Part of its role includes the promotion and monitoring of good practice in governance across the sector, and it has set up a programme of rolling reviews of specific governance procedures, with four key objectives:

- to provide assurance that governance processes are operating effectively;
- to consider how particular aspects of corporate governance operate within HEIs;
- to assess whether there are any deficiencies to be addressed;
- to identify any wider learnings that may assist the development of best practice in the sector.

As part of this rolling programme, a review into intellectual property (IP) policies and their implementation, and management of conflicts of interest relating to IP commercialisation was carried out in 2017, in association with Knowledge Transfer Ireland (KTI).

KTI was established in late 2013, and is a Department within Enterprise Ireland. KTI's role is to make it simple for enterprise to engage with the State funded research base in Ireland through increasing visibility of opportunity and routes to engage with the research base and providing guidance for industry and Research Performing Organisations (RPOs) on approaches to transactions. Clarity in respect of commercialisation policy and practice assists both public bodies and companies to do business more efficiently and successfully. One mechanism to provide this clarity of expectations is through the National IP Protocol¹, which was first published in 2012, and most recently updated in January 2019. This Protocol and associated Resource Guide² includes policies and guidelines in the management of IP to help industry make good use of public research in Ireland.

The Protocol provides policy guidelines which are then translated into action by the RPOs. Whilst the Protocol does not have binding legal force, it has been developed as national policy and is accepted by the public bodies which perform research and generate IP. Each of those bodies has its own statutory frameworks through which certain terms of the Protocol are enacted. Key amongst these are the respective Universities, Institutes of Technology and Technological Universities Acts.

In February 2018, the HEA and KTI published the report and recommendations of the rolling review of IP policies and their implementation, and the management of conflicts of interest in respect of IP commercialisation within Higher Education Institutions (HEIs) in Ireland³. In May 2018 the CEO of the HEA wrote to HEIs requesting them to take action to incorporate detailed minimum requirements for a policy for IP Commercialisation into their IP Policies. These minimum requirements came out of the recommendations of the rolling review, and were devised by a working group. The same recommendations were also incorporated into the 2019 update of the National IP Protocol and Resource Guide.

As detailed in the National IP Protocol, the State requires that each RPO shall have in place and operate an IP management system that meets the National IP Management Requirements. Requirement 1 specifies that each RPO must *“Adopt and disseminate a policy for IP commercialisation that includes*

¹ [National-IP-Protocol-2019-.pdf](#)

² [IP-Protocol-Resource-Guide.pdf](#)

³ [REVIEW-OF-IP-MANAGEMENT-AND-CONFLICTS-OF-INTEREST.pdf](#)

the Minimum Requirements for an IP Commercialisation Policy". This requirement is further elaborated in the Resource Guide, which describes the Minimum Requirements for an IP commercialisation policy. Details of these minimum requirements are provided in Appendix 1.

The HEA and KTI have now commissioned IP Pragmatics to carry out a review of the status of implementation by HEIs of this Requirement 1 of the National IP Management Requirements. This report details the findings of this review of IP Policy implementation, looking at two separate aspects:

1. Availability of updated IP policies for all 22 HEIs which fall under the governance of HEA
2. In depth analysis of IP policy implementation in a sample of 8 HEIs

In addition, the review looked at the respective Codes of Governance of the HEI sectors, and reports on:

3. Coverage of IP commercialisation and conflict of interest issues in the respective Codes of Governance of the HEI sectors.

Details of the Terms of Reference for the review and the methodology used in this study are provided in Appendix 1. The data collection and analysis for the report took place in October 2020.

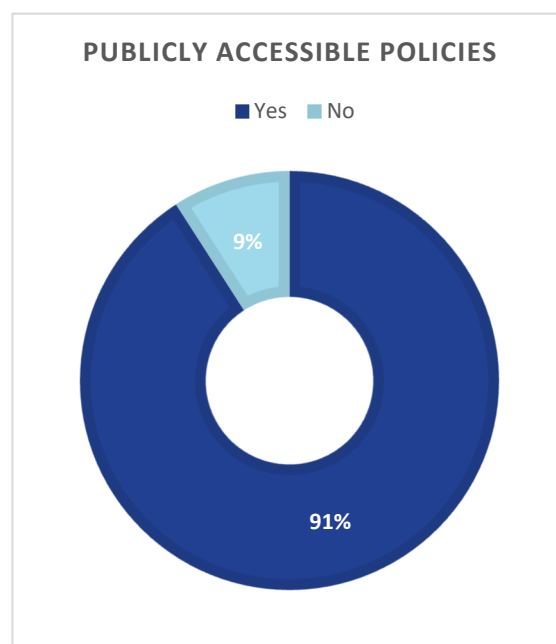
Note on terminology: The descriptor RPO (Research Performing Organisation) is commonly used to cover all the organisations in Ireland which carry out publicly-funded research. This includes Universities, Institutes of Technology, Technological Universities, and other public research organisations. HEA uses the descriptor HEI (Higher Education Institution) to cover the 22 organisations which fall under its jurisdiction. In this report, both terms are used. RPO is used in the National IP Protocol, and so appears in the direct quotations of the requirements therein and when referring to provisions of the protocol, and HEI is used to describe the subset of RPOs which are governed by HEA and which have been studied in this report.

3 AVAILABILITY OF IP COMMERCIALISATION POLICIES

Each Irish HEI should operate an IP management system that meets the National IP Management Requirements. One recommendation from Review of IP Management and Conflicts of Interest relating to Commercialisation of IP (KTI, HEA, 2018) and reiterated in the National IP Protocol is that HEIs should have an IP commercialisation policy which is **easily and publicly available on their website and updated regularly**. We have reviewed the websites of each of the 22 HEIs which fall under the governance of HEA, to establish the availability and effective date of their IP policies.

3.1 PUBLIC ACCESSIBILITY

Generally speaking, there is good accessibility of IP policies across the 22 HEIs. The vast majority (91%) of the institutions studied have an IP policy which is publicly available on their website. This is up from 77% which had a public policy at the time of the previous rolling review. The two remaining HEIs studied did not have a publicly available policy; neither is heavily research active. Of these, one organisation does not have an IP policy in place, relying instead on provisions in staff contracts, whilst the other does not have their IP policy available on their website. We were informed that the IP policy is typically distributed upon request from staff to the Technology Transfer Office (TTO) or Research Office, and should be posted on the staff intranet but could not confirm this independently.



A formal IP policy is important for all HEIs, even if they do not carry out independent research and so are not likely to make inventions and carry out traditional commercialisation of IP. However, patents and formal IP are not the only type of intellectual property that may be generated, and all HEIs will be creating copyright works in teaching materials, etc. It is therefore still advisable for all institutions to have an IP policy which covers the ownership and management of this type of IP, as well as giving at least some outline guidance on the approach to be taken in the event that commercialisable IP is generated at the HEI.

HEI websites have different structures, but it is recommended that, as a minimum, the IP Policy should be clearly signposted from both the TTO pages and the central university policy repository pages, since these are the most obvious locations for an individual to look for a policy governing IP commercialisation.

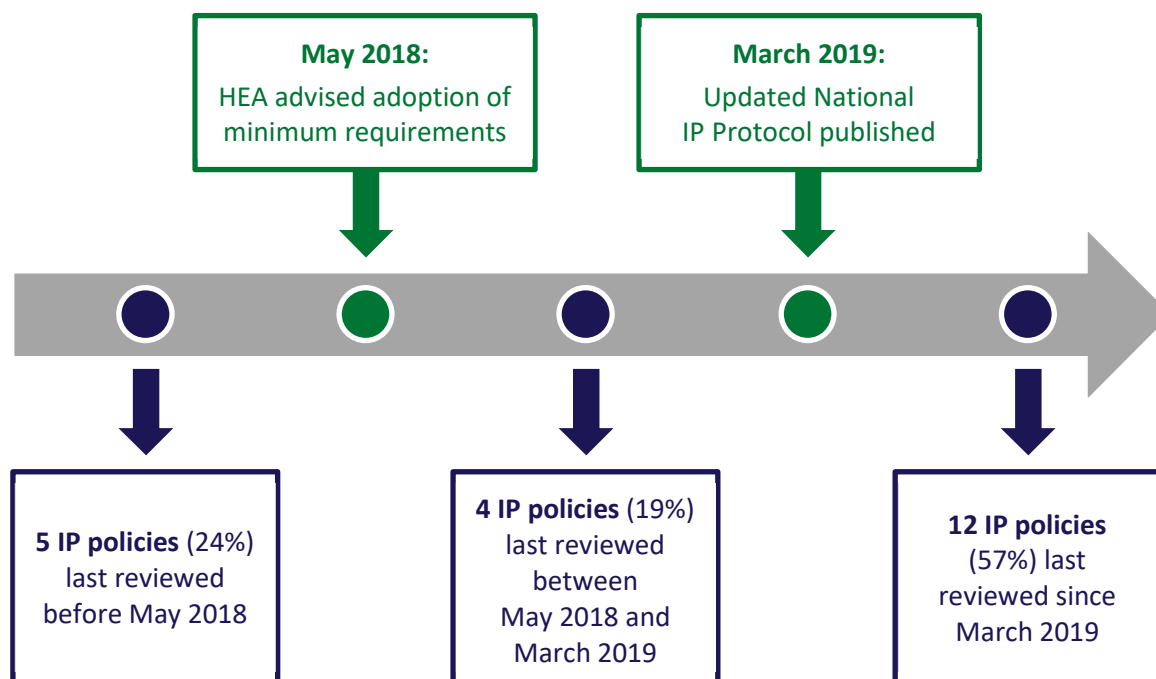
There also remains an issue with the removal of outdated IP policies from HEI websites. This includes links between webpages, such as TTO webpages which link to outdated versions of the IP policy. Outdated IP Policy pages may also be identified and accessible through search engines. Frequently, the outdated policies appear as the top search result when searching for a given HEI's IP policy.

3.2 POLICIES UPDATED IN LINE WITH LATEST GUIDANCE

A number of guidance documents in recent years have been issued by HEA and KTI which relate to IP Policy requirements. It is expected that IP policies should be reviewed regularly, in line with best practice, and promptly in response to any changing official guidance at a national level, such as the National IP Protocol. The National IP Management Requirements stipulates that “This policy shall be reviewed at least every four years and within six months of any new or updated National IP Protocol or, for HEIs, the relevant Code(s) of Governance and the Annual Governance Statement to the HEA.”

On 8 February 2018, HEA and KTI published the *Review of Intellectual Property Management and Conflicts of Interest* which included ten key recommendations to strengthen the IP policies, management procedures, and management of conflicts of interest relating to the commercialisation of IP. In May 2018, the HEA wrote to all the 22 HEIs studied in this report, advising them to adopt the recommendations of this Review and provided further guidance to them on the minimum requirements for an IP commercialisation policy. Identical minimum recommendations were then incorporated into The National IP Protocol 2019 which was updated and published most recently in March 2019, along with the updated IP Protocol Resource Guide which outlines the Minimum Requirements for an IP commercialisation policy.

We have reviewed the publication and review dates given for each of the IP Policies identified for the 21 HEIs with an IP policy in place, to determine when they were last reviewed and updated:



As of October 2020, 16 (76%) of the 21 HEIs with published IP policies have reviewed their policy since the request to do so was issued by the HEA in May 2018; 12 of these HEIs have done so since the introduction of the National IP Protocol 2019. Of these, six were approved within 6 months of the date of publication of the National IP Protocol 2019. Four of these 16 HEI policies were last updated between the date when the HEA sent its IP policy requirements to the HEIs (May 2018) and the publication of the National IP Protocol 2019 at the end of March 2019. These HEIs reacted quickly to

update their policies as required by the communication from HEA, and their policies should be in line with the recommendations in the National IP Protocol 2019, as the same recommendations were also included in the HEA letter. However, they will not be strictly compliant with the guidelines, as one requirement of the protocol is to review the policy within 6 months of the publication of a new National IP Protocol. Even where a given HEI policy already meets all the minimum requirements and no updates are required, the guidance in the National IP Management Requirements is that “The policy document shall have an introduction that references: ... The latest version of the National IP Protocol”. Policies in this group either reference the National IP Protocol of 2016 or 2012, or in one instance the policy does not make a reference to any versions of the National IP Protocol.

Finally, 24% of HEIs with accessible policies have not apparently been updated since the HEA instructions were issued in May 2018. It is known that at least one of these HEIs is in the final process of approving a new IP policy in line with the latest national guidance. The terms of reference for the study specified that the data for this part of the review should be based on publicly available information, and the status was not cross-checked with the other individual HEIs.

It should also be noted that some of these policies are missing effective dates and/or latest review dates for the document, making it difficult to establish with certainty whether the document viewed is the most recent version of the policy and when it was last reviewed. Effective dates of policies and dates of review, even where no changes have been made, should be recorded within the policy document. As a result of the enquiries made during the process of this review, some policies have already been updated to include the appropriate effective date.

4 IN DEPTH ANALYSIS OF IMPLEMENTATION

A sample group of eight HEIs have been selected by HEA in consultation with KTI for an in-depth review to assess the compliance of their IP policy in line with the detailed guidance within the first requirement of the National IP Management Requirements which is that each RPO “Adopt and disseminate a policy for IP commercialisation that includes the Minimum Requirements for an IP commercialisation policy”, and then itemises these minimum requirements. The sample included a spread of IP active organisations representing different types of HEI (universities, TUs, IoTs).

Some of these eight HEIs reported that they were in the process of updating their IP policies and getting formal approval for their adoption. For these institutions we have obtained and reviewed the new policy, rather than the existing one.

Throughout this report, the same approach is used when reporting the gap analysis of the content of the policies, which are presented as a tabular overview with each box representing the status for one HEI for the question. Green boxes show that the question is addressed in the policy, red boxes show that it is not addressed, amber boxes are used where the question is not fully addressed, or it is unclear. The numbering of the HEIs is consistent between all the tables presented.

4.1 UPDATED POLICY STATUS AND ACCESSABILITY

As of October 2020, of the eight HEI’s studied in the in-depth review, six of the policies have been reviewed and updated since the National IP Protocol was published in March 2019. Of the remaining two policies, one was updated just before the HEA advice was issued in May 2018, but did not follow the less specific recommendations in the KTI/HEA *Review of IP Management and Conflicts of Interest* report of February 2018. This policy is being reviewed as part of a wider project, but is not currently in the process of being updated. The outstanding HEI has a draft IP policy which is progressing through their approval process, with a view to be signed off by the Governing Body by the end of 2020. A number of the updated policies have received final approval during the timeline of this review, therefore some of the policies are a matter of a few weeks’ old. This may indicate that although a review of an IP Policy may take place within 6 months of a new National IP Protocol, it can take much longer for the policy to be amended and approved. This is in part due to the consultation, review and approval processes required to adopt a new policy.

	<u>HEI:</u>	1	2	3	4	5	6	7	8
Has the HEI has implemented a single policy for IP commercialisation?		Red	Amber	Green	Green	Green	Green	Amber	Green
Whether the IP commercialisation policy and/or processes specify that the policy is reviewed at least every four years and within six months of any new or updated National IP Protocol and issue of revised Code(s) of Governance.		Green	Green	Green	Red	Green	Green	Amber	Amber
If the IP commercialisation policy is suitably well publicised to those for whom it is relevant and that it is easily accessible internally and externally on the HEI’s website.		Green	Green	Green	Green	Green	Red	Amber	Green

■ Yes
 ■ No
 ■ Not fully / unclear

Single policy - Every HEI should have a single IP policy covering all major commercialisation routes, including spin-outs. Since the last review many of the HEIs have incorporated their Spin-out Policies into a single IP commercialisation policy. 6 of the HEIs analysed have a single policy covering IP commercialisation. The remaining 3 HEIs have separate spin-out policies, or annexes which are referenced within the policy but are missing, or have a separate spin-out policy available on their website where it is not clear if this has been subsumed into the most recent IP policy.

Update frequency - 5 of the HEI policies are compliant with the requirement to update their IP policy regularly and in line with any change in national policy or guidance. Deviations from this review period include 2 HEIs which state that their policy is reviewed annually, but no mention is made to changes in national policy or guidance being a trigger for review. One HEI stipulates that it reviews its IP policy at least every 5 years.

Accessibility - All of the HEIs studied have their latest IP policy available publicly on their website however some of these were not well publicised or easily accessible. These policies were difficult to find either on the website in the locations it would expect to be located (central university repository, research office or TTO webpages), by the website search function or internet search engines.

4.2 POLICY REVIEW AND OWNERSHIP

The National IP Management Requirements include document management, so that an individual reading the policy could identify if the policy is within date, who has responsibility for the policy and who to contact regarding its content.

	<u>HEI:</u>	1	2	3	4	5	6	7	8
Does the IP commercialisation policy document detail information on policy review and ownership:									
→Effective date of policy		Yes	Yes	Not applicable	Yes	No	Yes	No	Yes
→Review date		No	No	No	Not applicable	No	No	No	No
→Historic dates of review and revisions		No	No	Yes	Not applicable	Yes	Not fully / unclear	No	Yes
→Date for next review		Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
→Policy owner e.g. VP Research, Secretary etc		Yes	Yes	Yes	Not fully / unclear	Yes	Yes	Yes	Yes
→The body within the RPO that has approved the policy		Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
→Who to contact relating to content		Yes	Yes	Yes	No	Yes	Yes	No	Not fully / unclear

Yes
 No
 Not fully / unclear
 Not applicable

There is some variability in compliance between the HEIs with respect to document management of their respective IP policies. Including the date of next review, identifying a policy owner and documenting approval bodies is generally well adhered to. The policy owner tends to be the Vice President of Research and Innovation but also may be the TTO or the appropriate decision-making

IP committee. Six policies specifically identify the governing authority as the entity with ultimate approval of the IP Policy and of the delegations of decision-making authority laid out within that Policy. One other specifies that the Executive Body has approved the policy, and the last does not mention which body has final approval.

An essential component of any policy is its effective date, which is missing from a few of the policies studied. This previously also included some HEIs which have now updated their policies to include the effective date when prompted under this review, indicating that this requirement may also not be satisfied by other HEIs which were not studied in the in-depth analysis. The policy should include the effective date within the document itself, rather than defining it as the effective date as the date on which the policy is posted on the intranet. The remaining pending policy reviewed (shown as not applicable in the table) does not have an effective date at present as it is not yet in effect, but does have a space to include this information once it is approved.

An obvious gap identified across the HEI policies reviewed is notifying the date on which the policy was last reviewed along with previous dates of review and revision. There should be a clear timeline of all previous versions of the policy, including dates of triggers for policy reviews. All but one of the policies correctly include the date when the next review will be due, although in one case this is defined as 5 years from the effective date, which is not correct, as it is longer than the 4 years specified by the National IP Protocol.

It is a requirement of the National IP Protocol to include these management details, and it is good practice to list all these policy management details clearly together in a table at either the start or end of the policy document.

4.3 INTRODUCTION REQUIREMENTS

A policy introduction should accurately frame the document to allow the reader to quickly identify key elements covered in the policy, to whom it applies and references related documents, including related HEI policies and the latest national guidance.

	<u>HEI:</u>	1	2	3	4	5	6	7	8
Does the policy document have an introduction that references:									
→ Purpose/objectives of the policy		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
→ Scope - to whom it applies		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
→ What it covers		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
→ Any related RPO policy documents or other associated documents		Not fully / unclear	Yes	Yes	Yes	Yes	Not fully / unclear	Not fully / unclear	Yes
→ The latest version of the National IP Protocol (2019)		Yes	Not fully / unclear	Yes	Yes	Yes	Yes	No	No
→ Date of the policy document’s last review		No	No	No	Not applicable	No	No	No	No

Yes
 No
 Not fully / unclear
 Not applicable

All policies, across the board, have an introduction which succinctly outlines the purpose, scope and breadth of the policy document.

IP policies reviewed tend to reference a range of related HEI policies, these are sometimes referenced in the introduction or in their own dedicated section. Policies referenced, outside of the annex of the documents, can include their Consultancy Policy, Conflict of Interest Policy, Signing Authority Policy, Code of Conducts, HEI Strategic Guidelines, Student Handbook and a number of broader HR policies.

Not all policies make reference to the 2019 version of the National IP Protocol within the introduction to the policy. Of those policies not referencing the appropriate protocol, one organisation does not mention the Protocol in any capacity, another talks about the high level principles contained in the Protocol but does not explicitly reference the Protocol, and the final organisation makes reference to both the 2016 and 2012 versions of the Protocol, not the 2019 version.

As outlined in section 4.2, there is a gap in documenting the policy dates of revision and review. Aside from one policy noting that the current policy supersedes any previous policy there is no date given for the last review of the policy. In some instances, the policy makes reference to the previous policy in the revision history of the document, but not if or when it has been reviewed in the intervening years.

4.4 IP AND COMMERCIALISATION ROUTES

All 8 of the HEIs studied define IP in a broad manner which is sufficient to cover a range of different intellectual property types. The policy may also describe how an invention, patented or otherwise, may be commercialised.

HEI:	1	2	3	4	5	6	7	8
Does the policy document cover a variety of intellectual property, including:								
patents, copyright, trademarks, designs, domain names, software algorithms and code (as a special case of copyright), data, databases, confidential information and know-how, specialist types of IP protection such as plant breeders' rights.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does the policy document explain the major commercialisation routes <u>in detail</u> :								
→ Licensing	No	Yes	Yes	No	Yes	Yes	Yes	Not fully / unclear
→ Spin-out company creation	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
→ Disposal of IP (assignment)	No	Yes	Yes	No	No	Yes	No	Yes

■ Yes
 ■ No
 ■ Not fully / unclear

The definitions of the types of IP that are covered by the policy are consistent and use the definition of IP as outlined in the National IP Protocol and therefore are sufficiently comprehensive in all cases.

The Minimum Requirements state that all IP policies should provide information regarding the three main routes of commercialisation of IP. Licensing (where the recipient is given the right to use the IP, often in return for a share in any profits made), spin-out (where the IP is exploited in a new company set up to do so), and assignment (where ownership of the IP is permanently transferred to the recipient). It is recognised that the granularity of detail needed will differ between organisations based on their experience and likelihood to follow a particular commercialisation route. However, sufficient detail should be given to explain what is meant by the different routes; just stating that it is an option is not sufficient. The policies studied provide differing levels of detail in their explanations of commercialisation routes. That being said, all the policies include licensing as a route to commercialisation but only 5 of these provide any details as to why a given route is preferred for commercialisation, as well as details such as: the aim of granting a license, confirmation that a license would not affect the universities core objectives and different options for the type of licence agreements entered (i.e. exclusivity, field specific, sub-licence rights, geographic region).

One HEI has separate commercialisation and spinout guides which are referenced within the policy, however the links to these documents are broken, so it is not clear if they are still active policies and therefore whether there is sufficient provision as to commercialisation route guidance within the policy itself.

The spin-out company creation route is now well covered in plenty of detail in most policies providing information as to the criteria as to why that commercialisation route is suitable, HEI contribution, the procedures and decision-making process involved. There is one exception however, and this policy does not provide any information covering spin-out formation anywhere in the policy, which is a significant deviation from the requirements of the National IP Protocol.

Assignment of IP is identified as a commercialisation route in all policies studied, however four of the policies gave no further detail about this route. These policies only gave details with respect to assignment back to creators, as opposed to third parties outside of the HEI. The other policies provided further detail around assignment of IP to spin-out companies and third parties outside the university. These generally also refer back to the relevant principles set out in the National IP Protocol.

4.5 OWNERSHIP OF IP

The policies studied all identify who is covered by the terms of the IP policy; this includes the more traditional cases of staff, students and visiting researchers and to a lesser degree staff based outside the HEI and dual appointments.

<u>HEI:</u>	1	2	3	4	5	6	7	8
Does the policy explain ownership of IP in different situations, relating to:								
→ Members of staff								
→ Students								
→ Visiting researchers								

	<u>HEI:</u>	1	2	3	4	5	6	7	8
→ Staff based temporarily outside of the RPO		Yes	Yes	Not fully / unclear	No	Yes	No	No	No
→ Dual appointments (where relevant)		Yes	Not fully / unclear	Yes	No	Yes	No	No	No

Yes
 No
 Not fully / unclear

Six of the policies clearly explain the ownership of staff-generated IP in different scenarios. The remaining 2 policies have more convoluted ways of determining ownership of staff IP; both do cover the ownership as required by the National IP Protocol, but the more complex rules in place may make it more difficult for staff to understand the different scenarios and their associated rights and responsibilities under other sections of the IP Policy.

Again, students are all covered by provisions of the IP policies reviewed, with different approaches taken by the different HEIs to reflect their particular circumstances.

As well as permanent staff members, many policies also cover the provisions of ownership of IP generated by visiting researchers, which are by and large treated the same as HEI staff. Dual appointments, where an academic holds a position at two organisations (for example as a university medical researcher alongside a clinical appointment at the university hospital) are not common in Ireland, and are only covered by a few of the policies studied, but are clearly explained where they are included.

Only 3 of the policies reviewed specifically describe IP ownership when staff are temporarily based outside of the HEI.

4.6 RESPONSIBILITY OF THE ORGANISATION AND STAFF/STUDENTS

The minimum requirements for an IP Policy set obligations on individual Researchers and the HEI to ensure that there is a clear expectation of what is expected from each group to enable clear and smooth management of IP from the very start of the commercialisation process.

	<u>HEI:</u>	1	2	3	4	5	6	7	8
Does the policy describe the responsibilities of those who the policy covers with regard to:									
→ Disclosure of new IP and innovations		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
→ Working with the RPO to protect and commercialise		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
→ Assignment of rights		Yes	Not fully / unclear	Yes	Yes	Yes	Yes	Yes	Yes
Does the policy explain the role of the RPO in commercialisation of IP and reference should be made to:									
Explain RPO role		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
→ Use of Invention/Innovation Disclosure Forms		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

	HEI:	1	2	3	4	5	6	7	8
→ <u>Early</u> agreement and recording of contribution between multiple creators/inventors		Yes	Yes	Yes	Yes	Yes	Not fully / unclear	No	No
→ <u>Early</u> formal assignment of IP to the RPO		Not fully / unclear	No	Not fully / unclear	Not fully / unclear	Yes	Yes	Not fully / unclear	Not fully / unclear
→ Approach to determination of commercial terms, including reference to the consideration of state support in any such determination, and should make reference to the IP Protocol		Yes	Not fully / unclear	Not fully / unclear	Not fully / unclear	Yes	Yes	No	Not fully / unclear

Yes
 No
 Not fully / unclear

The fundamental responsibilities of researchers are well covered in the IP policies. Provisions cover both the appropriate disclosure of IP and inventions as well as working with the HEI to commercialise.

The role of the HEI in the commercialisation of IP is also covered by all the HEIs. All HEIs use an invention disclosure form (IDF). IDFs are typically used to describe the invention as well as identify the relative contributions of multiple inventors or creators. Agreement and recording of contributions between inventors, and formal assignment of IP from all inventors, should occur at a sufficiently early stage. It is good practice for these records and agreements be determined at the latest before any IP protection is sought, not least because failure to accurately determine inventorship can lead to the invalidation of patents in some jurisdictions, most notably the United States. Many of the HEIs studied incorporate this into their IDF process. Absolute clarity that all creators agree on their relative contribution can be provided in the IDF with signatures from all creators. Another HEI does not use the IDF for determination of creator contributions, instead this is determined by a Creator Share Agreement. This process is somewhat bureaucratic and ideally should be covered in the IDF, but may be appropriate for situations where multiple inventions are combined into a bundle of IP that is exploited through a common route. Some policies will also feed this information about the relative contributions to IP bundles into their revenue sharing arrangements, which are discussed in the following section.

Formal confirmatory assignment is also important to ensure that any later due diligence carried out at the time of licensing or spin-out proceeds smoothly. Two policies comply with the Minimum Requirements on this point. The other policies have gaps relating to assignment of rights, either due to the policy not requiring staff to formally assign IP or where voluntarily assignment of rights are required to access commercialisation support. These policies indicate that formal assignment is required, but not all of these stipulate when in the review process this should occur. Only one HEI does not require formal assignment of the IP it wishes to commercialise from staff and so is not in line with the minimum requirements.

The National IP Management Requirements also direct that IP policies should state how the HEI will approach the determination of commercial terms, for all appropriate agreements, particularly in reference to state support and the guidance in the latest National IP Protocol. Compliance with this requirement is inconsistent within policies but many of them make reference to one or both of these considerations that should be used when determining terms.

4.7 REVENUE SHARE

Revenue sharing is covered by the requirement which states that the HEI should implement systems for the sharing of different types of income which may be received from the commercialisation of IP within the HEI: between the HEI centrally, the originating Department and the researchers who are inventors and/or originators of the IP.

	<u>HEI:</u>	1	2	3	4	5	6	7	8
Does the policy explain the revenue sharing policy and shall cover how the following are handled:									
→Sharing amongst: Creator(s) and their Department(s) and the RPO									
→Revenue from licences (royalties, milestones, annual payments, etc)									
→Revenue from realisation of equity holdings in spin-outs									
→Equity shares in new spin-outs									
→Whether a researcher can share in more than one of these									

Yes
 No
 Not fully / unclear

The distribution of IP commercialisation revenue is well covered in the policies analysed, except for one policy which has no provision for spin-outs and therefore does not account for equity shares or revenue from share disposal.

All of the policies studied have a revenue share policy which divides the revenue into three parts, including a share for the creator, a share for the HEI, and a share for their academic affiliation (most often this share goes to the researcher's academic Department).

Nearly all policies define income/revenue to include both licence revenues and revenue from realisation of equity holdings in spin-outs, so these requirements are well adhered to. Three policies go further, to also specify the treatment of dividends received from equity holdings – although this may be a less common revenue source in practice, it is sensible to define in the policy how it will be treated if it arises.

Seven policies studied also provide some information as to how equity shares for academic founders in new spin-outs are handled. It is good practice to also include information on the HEI share, and perhaps any shares for external founders, but this is not a requirement in the Protocol. Most of these policies state that a founder may hold an equity share but little further information is given beyond this.

Where policies cover spin-outs, they are all clear about whether or not a researcher can share in more than one of these. Six of these policies take the approach that if a founding inventor of a spin-out has an equity holding then they have deemed to have already benefited and therefore have relinquished their right to any other share of revenue from a given invention. The other HEI treats share income

separately from IP income, and share income is not shared with creators, irrespective of their relationship with the spin-out.

4.8 DECISION MAKING AND PROCESSES

Decision making relating to IP commercialisation is covered by a number of different requirements in the National IP Protocol, covering both general commercialisation decisions and spin-out creation and management.

The intention in the Protocol is that there is a clear line of accountability for all decisions made by HEIs relating to management of IP commercialisation, such that both the process is clear and it is easier to identify where conflicts of interest may lie.

4.8.1 IP COMMERCIALISATION

The following table summarises the gap analysis for IP commercialisation decisions:

HEI:	1	2	3	4	5	6	7	8
Does the policy cover an explanation of decision making and shall include:								
→ Who makes decisions in respect of commercial evaluation of new innovations	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
→ Who makes decisions in respect of IP protection and prosecution including filing and management of patent applications and related IP protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
→ How the inventors/creators are identified and decided	Yes	Yes	Yes	Yes	Yes	Yes	No	Not fully / unclear
→ How the relative contributions made by the inventors/creators to the new innovation are identified and decided	Yes	Yes	Yes	Yes	Not fully / unclear	Yes	Not fully / unclear	Not fully / unclear
→ Who makes the decision on the exploitation route	Yes	Yes	Yes	Yes	Yes	Yes	Not fully / unclear	Yes
→ Who negotiates commercial terms	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
→ Who approves the commercial terms of a licence or assignment and any processes involved	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
→ Who makes the decision to abandon a patent application and the process, if applicable, to offer the IP back to the inventors/creators	Not fully / unclear	Yes	Not fully / unclear	Not fully / unclear	Yes	Yes	Not fully / unclear	Not fully / unclear
Grant back of rights:								
Does the policy discuss if and when grant back of rights to creators may be permitted and the process involved.	No	Yes	Yes	Not fully / unclear	Yes	Yes	Not fully / unclear	Yes

■ Yes
 ■ No
 ■ Not fully / unclear

For many of the HEIs reviewed, decisions relating to the assessment of disclosures, exploitation and IP management have been delegated to the TTOs, in particular giving authority to the Head of the TTO. Compared with the situation found in the 2018 Review, there appears to be a decreased reliance

on committees for day-to-day decision making in relation the IP commercialisation within this sample, although one HEI still uses an IP Committee for these functions. This move away from the use of committees for this type of decision-making is in line with good international practice.

Negotiation of commercial licenses is also usually the responsibility of a member of the TTO, whilst the sign off for any commercial terms falls to either the Head of the TTO, an appropriate committee, or a senior member of staff such as the Vice President for Research or the President. This aligns with good practice, where the person who negotiates the deal should not be the same person that signs off on the final documents. Some organisations have different decisions makers for a license and an assignment, whereby more senior sign off is required for an assignment due to its permanency.

Some gaps in this section can be attributed to the policy not clearly identifying the role or department of the HEI that is responsible for certain types of decision-making, instead referring to “the Institute” or equivalent. This does not provide clear guidance as to who the decision makers are. Where possible a specific job role or defined committee should be designated in order to be able to accurately assess any conflicts of interest and to be clear about where the authority lies.

As discussed above, good practice for the mechanisms to identify and attribute contributions to each creator is to do this when agreeing the IDF. This is generally adhered to across the policies studied. Contributions are usually decided between the inventors and confirmed by either a signed agreement in the IDF or a separate Benefit Share Agreement. Ideally a policy should either outline a fallback position (the TTO can decide or it is split equally) or that a third-party arbitrator may be appointed.

There are 3 main scenarios when a grant back of rights from the HEI to the academic IP creators may occur:

1. When an HEI decides not to file a patent application or other IP protection or any commercialisation route
2. When an HEI decides not to continue with prosecution of a patent application or other IP protection after it has been filed (but not yet granted)
3. When an HEI decides not to continue with commercialisation activity after one or more patents have been granted

An IP policy should cover all of these scenarios and reflect the appropriate terms of the assignment accordingly. For example, this might cover how expenditures to date are recovered, whether the transfer back to the creator is via a licence or assignment, and whether the HEI has any ongoing right should the technology be successful. A number of gaps have been identified in this area, as in many cases it is not completely clear who the decision maker is and/or when under these scenarios a grant back is allowable. In one instance, a grant back is available when the IP has not been successfully commercialised, but if the HEI withdraws from the IP process then the creator is notified, but the decision has immediate effect and no option to step in is given to the creator. Consistency and clarity in this regard is recommended.

4.8.2 SPIN-OUT

Sections of the policies relating to spin-out formation are covered in different parts of the minimum requirements.

Many HEIs in this sample have delegated authority for many decisions to their professional TTOs with respect to pre spin-out guidance and decisions. However, it is seen in the policies studied that the TTO role in spin-out is assisting with spin-out proposal and acting as a first line of approval. For six of the HEIs studied, approvals are then referred to a formal IP committee or the Governing Body to support their decision making with respect to spin-out arrangements. In the remaining HEI, spin-out approval is given by the Vice President Corporate and Vice President for Research Development and Innovation.

HEI:	1	2	3	4	5	6	7	8
Does the policy cover an explanation of decision making and shall include:								
→Who approves the creation of a spin-out company and any processes involved	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
→ Who approves the RPO taking equity in a spin-out company and any processes involved	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
→ Who approves the commercial terms of spin-out and any processes involved	Not fully / unclear	Yes	Yes	Yes	Yes	Not fully / unclear	No	Yes
→ How RPO spin-out equity is managed and by whom, including when and how to sell shares	Not fully / unclear	Yes	Yes	Not fully / unclear	Yes	Yes	No	Not fully / unclear
→ Who approves the academic Founder(s) to act as spin-out company director(s) and any processes involved	Yes	Yes	Yes	Yes	Not fully / unclear	Not fully / unclear	No	Yes
→ Process and decision-makers involved in allowing spin-out companies to access RPO facilities	Yes	No	Not fully / unclear	Not fully / unclear	Yes	Yes	No	Not fully / unclear
Spin-out decision-making:								
Does the policy note that decisions to form a spin-out company or the decision as to when to sell RPO equity holding in spin-outs should involve at least one senior executive from within the RPO, who is not part of the research hierarchy, for example the Secretary or Chief Financial Officer.	Yes	Yes	Not fully / unclear	Not fully / unclear	Not fully / unclear	Yes	No	Yes

Yes
 No
 Not fully / unclear

Overall, there is good compliance to the requires of the National IP Protocol Guidance with respect to spin-out decision making and also in respect of clarity on staff incentives and revenue sharing from equity in spin-outs (see section 4.7). As mentioned above there is one policy which does not cover commercialisation via spin-out at all, and so is not in compliance with the minimum requirements as they relate to the process or decision makers involved in spin-outs.

There are some areas in the Minimum Requirements which could benefit from some further clarification, for example, the scope of what is meant by “the commercial terms of spin-out”. This could include the equity stakes taken by the HEI and academic founders as well as external founders, the terms of access to the IP, and to any other relevant resources such as HEI expertise and secondment of staff. Access to HEI facilities is expressly covered in a separately clause of the minimum requirements but it is not clear if this should encompass both lab/office space and specialist equipment. This requirement tends to not be particularly well covered in the policies studied in terms of process and decision makers involved.

Disposal and management of HEI shares in a spin-out could also benefit from some further detail in some policies. Five policies do not include all the information needed to ensure both provisions are explained for management of HEI shares and disposal of shares, in addition to who makes the decision and when with respect to disposal. It would also be good practice to reiterate the obligation of each HEI as outlined in their respective Codes of Governance, such that where appropriate disposal should be in line with the provisions governing disposal of state assets.

It is recognised that there may be different decision makers for spin-out formation as opposed to disposal of HEI shareholding in a spin-out. It should therefore be made clear who makes each decision and that each decision involves at least one person outside of the research hierarchy. The appropriate person, such as the Head of Finance and/or the HEI’s Secretary, is usually a member of the decision-making committee. A number of the policies state that the approval of particular spin-out matters lies with the President of the HEI , which would also be acceptable so long as appropriate processes to manage any potential conflict of interest in this circumstance are in place.

When founders are involved with a spin-out, such as by being a Director or consultant, there should be provision covering how conflicts of interests are managed. One HEI necessitates a Conflict of Interest Management Plan as part of the application for spin-out approval.

4.8.3 ADMINISTRATION OF DECISION MAKING

Some aspects of the minimum requirements relate to the administration and timelines involved in IP commercialisation decision making.

	<u>HEI:</u>	1	2	3	4	5	6	7	8
Does the policy cover an explanation of decision making and shall include:									
→ Composition of relevant decision-making committees		Yes	No	No	Yes	Not fully / unclear	Not applicable	Not fully / unclear	Yes
→ Timescales involved		No	Yes	No	No	Yes	No	Yes	No
→ A link to where detail on authorised signatories can be found		Yes	Yes	Yes	Not fully / unclear	Yes	No	No	Not fully / unclear

Yes
 No
 Not fully / unclear
 Not applicable

The compliance with regard to the requirements outlined in the gap analysis table above could be improved. Decision-making committees are identified, but the membership should be clearly defined in terms of the relevant job titles, and where more than one committee is outlined in the IP policy all memberships should be defined. This provides both clarity in the decision-making processes and easier opportunities to identify any conflicts of interest. HEI 6 does not use any decision-making committees for IP commercialisation, and so does not provide information on committee composition.

The minimum requirements state that the IP policy should include information on the timescales involved in IP commercialisation, but do not specify which particular processes should be included in this. Explanation of timelines associated with IP commercialisation and decision making are generally lacking in the policies reviewed. Timelines tend to only be provided for revenue distribution and

deadlines with respect to dispute resolution. Although the timescales involved in commercialisation will vary considerably depending on the details of each specific project, there are some timelines which are more predictable and manageable, and which could be used to manage expectations of both the inventor and the HEI, including:

- Decisions relating to commercial and IP assessment of invention disclosure, such that the creator has an idea of how early an IDF should be submitted before a planned disclosure, such as a publication or a conference
- When inventors and their relative contributions have to be decided and formal assignment completed
- How often decision-making committees meet or how quickly they can be convened if a decision is required before the next scheduled meeting

Six of the 8 policies reviewed identify a named signatory for appropriate IP commercialisation documentation. Some of these do this through reference to a Signing Authority Policy which can be used to identify an appropriate signatory for all HEI decision including commercialisation, whilst others provide named authorities for particular IP commercialisation documents within the IP Policy itself.

4.9 CONFLICTS OF INTEREST & DISPUTE RESOLUTION

Specific Conflict of Interest policies are now commonplace amongst HEIs in Ireland and the IP Management Requirements state that the Conflict of Interest policy should be referenced in the IP policy, which should also demonstrate how conflict may arise in the commercialisation process. HEI IP Policies should also include mechanisms for dispute resolution.

	HEI:	1	2	3	4	5	6	7	8
Dispute resolution:									
The policy shall describe processes for dispute resolution.									
Does the policy:									
→ Identify the situations where there is potential for conflict of interest in respect of IP commercialisation									
→ Cross-reference the RPO's Conflict of Interest policy									

■ Yes
 ■ No
 ■ Not fully / unclear

There is adherence across the board in this sample of policies with providing a description of the dispute resolution process. The most comprehensive of these include the process for internal review, how an external third party can be appointed, who bears their costs and associated timelines, in line with good practice.

Conflict of interest can occur in relation to many aspects of academic life, of which IP commercialisation is only one scenario in which conflicts can occur. All but one of the HEI's policies studied make reference to the organisation's Conflict of Interest Policy. There are however, varying

degrees of adherence to the minimum requirement of the National IP Protocol to outline appropriate examples of conflicts. Some IP policies states that conflicts can occur in the whole commercialisation process by provide no, or few, discernible examples of conflicts which may occur during the process. One HEI has elected to provide examples of appropriate conflicts within the Conflict of Interest Policy instead of the IP Policy.

4.10 STATUTORY PROVISION

One of the minimum requirements in the policy stipulates that decision making is governed by statutory provision.

	<u>HEI:</u>	1	2	3	4	5	6	7	8
Statutory provision:									
The policy shall explain that decision-making and approvals should be governed by statutory provision.									

A number of policies refer to the obligations under the Ethics in Public Office Act and Standards in Public Office Act, but no policy clearly states the statutory provision that govern decision making outside of this policy. Only one HEI mentions that certain decisions will be referred to the Governing Authority when required by Statute.

It is recommended that further clarity is provided to HEIs as to what is meant by this requirement, and in doing so making reference to relevant pieces of legislation which may govern IP commercialisation decision making.

5 GOVERNANCE OF IP

The requirements of the Code of Practice for the Governance of State Bodies (2016) provides the overarching context for the governance of HEIs, and are reflected in the specific Codes of Governance, which apply to different types of HEIs within Ireland.

As part of this review, the overall Code for State Bodies and these three sectoral Codes of Governance have been assessed to ascertain the extent to which they provide guidance on the governance of IP commercialisation processes and decision making, as well as how Conflict of Interest is identified and managed within IP Commercialisation.

The Codes of Governance for HEIs in Ireland are wide-ranging documents, and as would be expected they do not contain specific guidance relating to IP commercialisation. All of the three Codes of Governance explicitly mention conflict of interest for staff and non-disclosure of confidential information, which are also relevant in the context of IP commercialisation.

The following table summarises the aspects of Codes of Governance for State Bodies and Irish HEIs which are relevant to the management of IP commercialisation processes and decision making:

	State Bodies	Universities	Institutes of Technology	TU Dublin
IP disposal assumed to be governed in line with disposal of state asset provisions	Yes	Yes	No	Yes
State that IP disposal is governed by HEI IP policy	No	No	Yes	No
Reference made to the National IP Protocol in main text	No	Not fully	No	No
Framework for Code of Conduct for employees covering:				
• Conflict of interest	Yes	Yes	Yes	Yes
• Non-disclosure of confidential information	Yes	Yes	Yes	Yes
• Staff IP Policy compliance	No	No	Yes	Yes
Reporting requirements of IP Commercialisation governance in Annual Governance Statement:				
• Significant Shareholdings (over 30%)	Yes	Yes	Yes	Yes
• IP Policy compliance in line with the National IP Protocol	No	Yes	(through updated HEA template)	(through updated HEA template)

Yes
 No
 Not fully

One of the requirements of the Codes of Governance for Irish HEIs is that each institution is required to submit an Annual Governance Statement, approved by the governing authority, to the HEA. There are reporting criteria in this statement covering IP and Conflict of Interest.

Following the recommendation of the review of IP policies in 2017, additional reporting criteria were introduced to the Annual Governance reporting requirements of each HEI to the HEA. These new criteria include each HEI being required to providing annual statements confirming (amongst other requirements) that:

- (i) The HEI has in place a single IP policy, published on its website, which reflects the requirements of the national IP Protocol
- (ii) The HEI has in place a single IP Conflict of Interest Policy, published on its website
- (iii) The Governing Authority is made aware of all IP commercialisation and IP conflicts of interest on an annual basis.

These reporting criteria are laid out specifically in the Universities Code, and incorporated by linked references in the IoT and TUD Codes, though these references do not appear to be linked to the most up-to-date provisions and should be updated.

It may be timely to review these additional reporting criteria at the end of the third cycle of reporting from HEIs, to ensure that the information provided to the HEA is consistent and the level of detail required is appropriate for their needs.

The Institutes of Technology's code specifically states that in the case of IP disposals, these should not be governed by the provisions in the Codes relating to the disposal of state assets, but instead by each organisation's IP policy. This approach is helpful as it makes it clear how IP assets should be treated. The Codes for Irish Universities and TU Dublin do not make this exclusion of IP from other state assets, and so could be interpreted to suggest that IP assets and HEI shareholdings in spin-outs should be governed by the disposal provisions under their Codes. These provisions specify that where there is an asset over the value of €150,000 then disposal should be "by auction or competitive tendering process, other than in exceptional circumstances (such as a sale to a charitable body)." This does not align with how IP assets are typically commercialised and disposed of. A sale of spin-out equity or assignment of IP will in most circumstances have only one potential buyer, and so a competitive process is not feasible. Further it is required that "the anticipated value may be determined either by a reserve price recorded in advance in the university's records or by a formal sign-off by the governing authority on the advice of the CFO or, if delegated by the governing authority, sign-off by the CFO". This implies that sale of spin-out equity or assignment of IP with a value of over €150,000 may need to be approved by the Governing Body, and this is the case in some, but not all of the relevant policies which have been studied in this review. In many cases, this approach would be impractical, as the terms of the sale may be out of the hands of the HEI, and will usually require very quick decisions to be made. It would be good practice for the individual HEI IP policies to make reference to the relevant Code of Governance, and elaborate on how these provisions will be handled in the specific HEI.

The University Code of Governance makes reference to KTI, in relation to the *Review of IP Management and Conflict of Interest* (November 2017) commissioned by KTI and HEA. None of the Codes references the National IP Protocol or its associated guidance in the main text, but it is referenced in the Annual Governance reporting requirements.

The Codes all provide a framework for a Code of Conduct to cover all staff at an HEI. Only the Universities Code does not expressly include any IP policy compliance provisions within this Code of Conduct, nor does it include a more generic requirement to comply with all University policies.

6 CONCLUSIONS AND RECOMMENDATIONS

AVAILABILITY OF IP COMMERCIALISATION POLICIES

There is now good accessibility of IP Policies; the vast majority (91%) of the 22 HEIs studied have an IP policy on their public website, up from 77% at the time of the previous rolling review. This is a positive step, although some are still not easy to identify on the websites, and in some cases outdated policies can also still be found.

Sixteen (76%) of the 21 HEIs with published IP policies have reviewed or updated their policy since the request to do so was issued by the HEA in May 2018. Four HEIs reacted quickly to review/update their policies, and another 12 of these HEIs have done so since the introduction of the National IP Protocol 2019, half of which were approved within 6 months of its publication. However, missing effective dates and/or latest review dates, make it difficult to establish accurately when some documents were last reviewed. Five HEIs have not reviewed or updated their policy since May 2018 (at least one of these HEIs is in the final process of approving a new IP policy, but this was not checked for all).

Recommendations relating to policy availability include:

- All HEIs should have an IP Policy, even if they are not currently expecting to generate formal IP that could be commercially exploited.
- Any HEIs which have not reviewed or updated their IP Policies since May 2018 should do so as a matter of urgency, as a review should have been triggered by the request from the HEA in May 2018, and the issuance of the updated National IP Protocol in January 2019.
- The policy should be on the public website, and linked from the TTO and the central policy pages.
- Basic policy document management procedures should be implemented which will make it easier to identify when a review is due, and to monitor updates and remove outdated documents.

IN-DEPTH IMPLEMENTATION OF THE REQUIREMENTS

The overall picture has improved significantly since the previous rolling review was published in 2018, although the terms of reference for this report do not include a direct comparison with the previous findings. The most important aspects are now generally well covered by most of the HEIs in the sample studied, including IP ownership, responsibilities, revenue-sharing, the fundamentals of decision-making, dispute resolution and conflicts of interest. Spin-out company creation and approval and issues relating to equity shares in spin-outs are also pretty well covered in the sample organisations.

Seven of the eight HEIs reviewed each cover around 70-80% of the requirements fully, with others at least partially covered, but none of the HEIs in the sample studied are fully compliant with all the requirements. The exception is one policy which has been updated since the introduction of the National IP Protocol and guidance on minimum requirements, but still only fully meets around one third of the requirements, in large part because it does not include any reference to procedures surrounding spin-out formation.

The requirements which have consistently lower levels of compliance across this sample are:

- Notifying the date on which the policy was last reviewed along with previous dates of review and revision. It is good practice to list these and other basic policy management details clearly in a table at either the start or end of the policy document.
- Details about assignment as a mechanism of IP commercialisation, including how this differs from licensing, and when it may or may not be an appropriate route.
- Ownership of IP generated by staff in less common situations, for example if they are based temporarily outside of the RPO, or have a dual appointment (which is not common in Ireland).
- How the RPO will approach the determination of commercial terms, particularly with reference to state support and the guidance in the latest National IP Protocol. Many policies make reference to one or other, but not both of these considerations.
- How RPO spin-out equity is managed and by whom, including when and how to sell shares.
- Less common decision-making situations, such process and decision-makers involved in allowing spin-out companies to access RPO facilities; who makes the decision to abandon a patent application and the process, if applicable, to offer the IP back to the inventors/creators.
- Details of the administration of decision making, such as clarity over committee membership, the timescales involved and relevant authorised signatories.

The National IP Management Requirements give guidance on the elements to be included within the policy, but do not dictate either the precise wording to be used, or the approach that is to be taken to certain aspects of policy, leaving this to the individual HEI to develop, in a way which is consistent with their local governance and practice. The HEIs in this sample take different approaches to certain aspects of IP management, which is appropriate, so long as the approach is clear and suitable for the local situation.

In some instances, it appears that the minimum requirements for an IP commercialisation policy may be ambiguous, leading to difficulties in implementation within the IP Policies studied. For example:

- What is “early” in the context of the determination of inventor contributions, or of the formal assignment of IP.
- How decision-making should involve at least one person outside of the research hierarchy; in this context, the President of the HEI may be acceptable so long as appropriate processes to manage any potential conflict of interest in this circumstance are in place.
- Relevant statutory provision.

Recommendations relating to the detailed compliance with the guidelines relating to IP Policies include:

- At their next scheduled review date, all HEIs should review their IP Policy again against the Minimum Requirements laid out in the National IP Protocol, because our sample shows that even where the policies have been recently updated, they still do not fully comply with the guidelines.
- Particular attention should be paid to basic policy document management; to certain details of how decisions are made, particularly with respect to management of spin-out equity, sale of shares and assignment of IP; and to ensuring that less common situations are mentioned.

- HEA should follow up with the relevant HEIs on the specific issues raised by the gap analysis for the 8 HEIs studied in depth, with the support of KTI as appropriate.
- Further clarification and guidance may be helpful for some of the minimum requirements in the National IP Protocol which appear to be less well understood, including the reference to statutory provisions, as well as clarification of what is meant by “early” in specific situations.

GOVERNANCE OF IP

The Codes of Governance include relevant provisions covering conflict of interest and non-disclosure of confidential information, which are applicable to IP commercialisation. They also include requirements for reporting on certain aspects of the IP Policy and Conflict of Interest Policy in the Annual Governance Statement.

The Code for the IoTs specifically excludes IP assets from the provisions relating to the disposal of state assets, and instead says that this should be governed by the HEI’s IP Policy. This is helpful as it provides clarity on this question which is not specifically addressed by the other Codes, leading to the assumption that IP assets may need to be disposed of in line with the guidance relating to other types of state assets, which may not be feasible or appropriate.

Recommendations relating to the Codes of Governance would include:

- Individual HEI IP policies should make reference to their relevant Code of Governance, elaborating in particular on how the provisions relating to disposal of state assets will be applied in the case of the sale of spin-out equity and/or assignment of IP.
- Consider a review of the additional IP governance reporting requirements by HEA at the end of the third cycle of reporting from HEIs.

APPENDIX 1: METHODOLOGY

6.1 TERMS OF REFERENCE

The full terms of reference given for the review are reproduced here:

KTI and the HEA intend to commission an international expert in the commercialisation of IP from the HEI sector to undertake an independent review of the status of implementation of Requirement 1 of the National IP Management Requirements: **Adopt and disseminate a policy for IP commercialisation that includes the Minimum Requirements for an IP commercialisation policy.**

- **In-depth Analysis of Implementation:** Review the existing policies for IP commercialisation in a sample of 8 higher education institutions (agreed in advance with KTI and the HEA) to assess compliance with the national IP Management requirement no.1 including reviewing and documenting:
 - When the published IP commercialisation policy was last updated
 - For those HEIs that have updated their IP commercialisation policy in view of the guidance from HEA, as captured subsequently in the National IP Protocol, review and document:
 - Whether the policy adequately addresses all **14 Minimum Requirements** for an IP commercialisation policy as detailed in the National IP Protocol.
 - If the HEI has implemented a **single policy for IP commercialisation**
 - Whether the IP commercialisation policy and/or processes specify that the policy is **reviewed at least every four years** and within six months of any new or updated National IP Protocol and issue of revised Code(s) of Governance.
 - If the IP commercialisation policy is suitably well publicised to those for whom it is relevant and that it is **easily accessible internally and externally** on the HEI's website.
 - For those HEIs that have drafted an updated IP commercialisation policy (with reference to the guidance from HEA, as captured subsequently in the National IP Protocol) and which is in the process of internal review prior to publishing, review and document:
 - The status of progress internally and anticipated publication date
 - Whether the policy will adequately address all 14 Minimum Requirements for an IP commercialisation policy as detailed in the National IP Protocol.
 - If the HEI is implementing a single policy for IP commercialisation
 - Whether the IP commercialisation policy and/or processes will specify that the policy is reviewed at least every four years and within six months of any new or updated National IP Protocol and issue of any relevant Code(s) of Governance by the HEA.
 - How the IP commercialisation policy will be publicised to those for whom it is relevant and made easily accessible internally and externally on the HEI's website.

Overview of Implementation:

- **Availability of IP commercialisation policies:** Review the websites of all HEA institutions (22) to determine and document if their IP commercialisation policy is up to date and suitably well publicised to those for whom it is relevant and that it is **easily accessible internally and externally** on the HEI's website.
- **Governance of IP:** Review and document where and how reference is made to IP policy and Conflicts of Interest policy in the three Codes of Governance for: Irish universities, Institutes of Technology and the Technological University Dublin.

Conclusions and Recommendations:

Draw conclusions on the availability, extent of coverage and implementation of IP policies amongst the sample set of HEIs including the adherence to the national IP Management requirements across the HEI sector. Identify any gaps and make recommendations on any changes that should be implemented and on any actions that should be taken by HEIs, the HEA and KTI.

6.2 APPROACH TAKEN TO THE STUDY

This review was guided by a small Steering Group with representatives from KTI and HEA to ensure that the fact-finding and report recommendations are set in the framework of local protocols and expectations.

The review took a three-fold approach, including a review of the Codes of Governance that control the operation of the IP Policies, an overview of the availability of IP commercialisation policies in all HEIs, and an in-depth analysis of a sample of eight institutions chosen by KTI and HEA to understand their current stage of implementation, and (where this is in progress) the likely timelines towards full implementation. This has allowed us to draw conclusions on the current status of implementation, and to identify any gaps and make recommendations as to changes that may be needed.

6.3 ACCESSIBILITY OF IP COMMERCIALISATION POLICIES

The websites of all 22 institutions governed by HEA were reviewed to determine:

- Whether their IP commercialisation policy is up-to-date
- Whether it is suitably well publicised to those for whom it is relevant
- Whether it is easily accessible internally and externally on the HEI website

If the policy was not available on the public website, then direct contact was made with those institutions to understand if the policy is available through an internal intranet or similar system instead.

The HEIs studied were:

Athlone Institute of Technology	Mary Immaculate College
Cork Institute of Technology	Maynooth University
Dublin City University	National College of Art and Design
Dundalk Institute of Technology	NUI Galway
Galway-Mayo Institute of Technology	St Angela's College
IADT Dun Laoghaire	Trinity College Dublin
Institute of Technology Carlow	TU Dublin
Institute of Technology, Tralee	University College Cork
IT Sligo	University College Dublin
Letterkenny Institute of Technology	University of Limerick
Limerick Institute of Technology	Waterford Institute of Technology

6.4 IN DEPTH ANALYSIS OF IMPLEMENTATION

The 8 HEIs chosen for in-depth analysis were chosen by HEA in consultation with KTI to represent a spread of different types of HEI (University, Technical University, Institute of Technology), all of which are active in IP commercialisation, but with varying levels activity.

The existing policies for each of the 8 HEIs selected for in depth analysis were obtained by searching their public websites. Direct contact with each HEI was also made to ensure that the policies identified were still current, and to ascertain whether any were in the process of being updated. This identified a number of policies in the late stages of updating and approval, and in these cases the updated policy was obtained and studied in this review.

Having obtained the IP policy for each HEI, each policy was analysed to assess compliance with the national IP Management requirement, by reviewing and documenting the following aspects as outlined in the IP Protocol Resource Guide:

NATIONAL IP PROTOCOL 2019

IP Protocol Resource Guide, Section I (2019) Under requirement 1 of the National IP Management Requirements dictates that RPOs **adopt and disseminate a policy for IP commercialisation that includes the Minimum Requirements for an IP Commercialisation Policy.**

These are the main elements that, at a minimum, would be expected to be covered in an RPO policy document for IP commercialisation. The IP Protocol Resource Guide advises that:

- RPOs shall have in place a single policy for IP commercialisation.
- This policy shall be reviewed at least every four years and within six months of any new or updated National IP Protocol or, for HEIs, the relevant Code(s) of Governance and the Annual Governance Statement to the HEA.
- The policy shall be well publicised to those for whom it is relevant and easily accessible internally and externally on the RPO's website.

The Resource Guide also determines that the minimum requirements for an IP commercialisation policy are as follows:

- A. The IP commercialisation policy document shall detail information on policy review and ownership:
 - Effective date of policy.
 - Review date.
 - Historic dates of review and revisions.
 - Date for next review.
 - Policy owner e.g. VP Research, Secretary etc.
 - The body within the RPO that has approved the policy.
 - Who to contact relating to content.
- B. The policy document shall have an introduction that references:
 - Purpose/objectives of the policy.
 - Scope - to whom it applies.
 - What it covers.
 - Any related RPO policy documents or other associated documents.
 - The latest version of the National IP Protocol.
 - Date of the policy document's last review.
- C. The policy document shall cover a variety of intellectual property: patents, copyright, trademarks, designs, domain names, software algorithms and code (as a special case of copyright), data, databases, confidential information and know-how, specialist types of IP protection such as plant breeders' rights.
- D. The policy document shall explain the major commercialisation routes in detail:
 - Licensing.
 - Spin-out company creation.
 - Disposal of IP (assignment).
- E. The policy shall explain ownership of IP in different situations, relating to:
 - Members of staff.
 - Students.
 - Visiting researchers.
 - Staff based temporarily outside of the RPO.
 - Dual appointments (where relevant).
- F. The policy shall describe the responsibilities of those who the policy covers with regard to:
 - Disclosure of new IP and innovations.
 - Working with the RPO to protect and commercialise.
 - Assignment of rights.
- G. The policy shall explain the role of the RPO in commercialisation of IP and reference should be made to:
 - Use of Invention/Innovation Disclosure Forms.
 - Early agreement and recording of contribution between multiple creators/inventors.
 - Early formal assignment of IP to the RPO.
 - Approach to determination of commercial terms, including reference to the consideration of state support in any such determination, and should make reference to the IP Protocol.

- H. The revenue sharing policy shall be explained and shall cover how the following are handled:
 - Sharing amongst: Creator(s) and their Department(s) and the RPO.
 - Revenue from licences (royalties, milestones, annual payments, etc).
 - Revenue from realisation of equity holdings in spin-outs.
 - Equity shares in new spin-outs.
 - Whether a researcher can share in more than one of these.
- I. The policy shall cover explanation of decision making and shall include:
 - Who makes decisions in respect of commercial evaluation of new innovations.
 - Who makes decisions in respect of IP protection and prosecution including filing and management of patent applications and related IP protection.
 - How the inventors/creators are identified and decided.
 - How the relative contributions made by the inventors/creators to the new innovation are identified and decided.
 - Who makes the decision on the exploitation route.
 - Who negotiates commercial terms.
 - Who approves the commercial terms of a licence or assignment and any processes involved.
 - Who makes the decision to abandon a patent application and the process, if applicable, to offer the IP back to the inventors/creators.
 - Who approves the creation of a spin-out company and any processes involved.
 - Who approves the RPO taking equity in a spin-out company and any processes involved.
 - Who approves the commercial terms of spin-out and any processes involved.
 - How RPO spin-out equity is managed and by whom, including when and how to sell shares.
 - Who approves the academic Founder(s) to act as spin-out company director(s) and any processes involved.
 - Process and decision-makers involved in allowing spin-out companies to access RPO facilities.
 - Composition of relevant decision-making committees.
 - Timescales involved.
 - A link to where detail on authorised signatories can be found.
- J. The policy shall note that decisions to form a spin-out company or the decision as to when to sell RPO equity holding in spin-outs should involve at least one senior executive from within the RPO, who is not part of the research hierarchy, for example the Secretary or Chief Financial Officer.
- K. The policy shall explain that decision-making and approvals should be governed by statutory provision.
- L. The policy shall describe processes for dispute resolution.
- M. The policy shall discuss if and when grant back of rights to creators may be permitted and the process involved.
- N. The policy shall identify the situations where there is potential for conflict of interest in respect of IP commercialisation and shall cross-reference the RPO's Conflict of Interest policy.

6.5 GOVERNANCE OF IP

HEA provided the current versions of each of the three Codes of Governance for: Irish universities, Institutes of Technology and the Technological University Dublin. These were reviewed to identify and document where and how reference is made to IP policy and Conflicts of Interest policy within these Codes.

APPENDIX 2 - ACRONYMS AND ABBREVIATIONS USED IN THE REPORT

Acronym	Description
HEA	Higher Education Authority
HEI	Higher Education Institution
IDF	Invention Disclosure Form
IP	Intellectual Property
KTI	Knowledge Transfer Ireland
RPO	Research Performing Organisation
THEA	Technological Higher Education Association
TTO	Technology Transfer Office