

# Collins McNicholas

## Recruitment & HR Services Group



# PhD Survey 2010

Collins McNicholas  
Recruitment & HR Services Group

[www.collinsmcnicholas.ie](http://www.collinsmcnicholas.ie)

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## 1. INTRODUCTION

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The Collins McNicholas Group conducted a national survey of the number of PhD Graduates currently registered on its database in the regions served by its offices in Dublin, Cork, Galway, Sligo, and Athlone. A total of 2,018 PhD Graduates were analysed for the survey.

This highly qualified group of people register with us in the course of our recruitment and HR services: they have expressed an interest in being made aware of relevant opportunities; they may have a good position at present but are open to review new opportunities.

The result is that the Collins Mc Nicholas Group has direct confidential access to over 2,000 PhDs in Ireland – one of the most scarce “natural resources” available to the country. We can access this bank of talent on behalf of Irish indigenous companies or foreign companies and we do so on a regular basis. This survey provides a breakdown of the 2,018 PhDs by their study discipline and by the regions they are located in.

According to the report "The Role of PhDs in the Smart Economy" (Advisory Science Council 2009), PhD graduates make an effective contribution to enterprise and optimally contribute to increased innovation in the sector. PhDs who embark on a career in enterprise can bring with them, not only the knowledge they acquired directly through their research, but also skills, working methods and a network of relationships, to whom they can turn for support in their professional lives. The holder of a PhD has demonstrated the capacity to be a strong independent thinker and researcher. A steady stream of PhD Graduates is vital to ensure that Ireland has the knowledge, skills and creativity that will provide us with the economic capacity to translate ideas into valuable processes, products and services. It will improve Ireland’s human capital – ensuring the Irish workforce has the skills that modern high-tech economies need. The availability of advanced researcher skills is essential in attracting foreign direct investment. Ireland needs to maintain a competitive output of PhDs in relevant disciplines, in line with other developed countries, in order to remain attractive to potential investors.

According to Science Foundation Ireland [SFI];

- The number of researchers within the enterprise sector increased from 6,937 in 2001, to 8,304 in 2007, an increase of 20%.
- The number of PhD-qualified researchers has increased from 420 in 2001, to 1,191 in 2007 (an increase of 183% over the same period).
- Half of all research personnel employed since 2001 were PhD qualified researchers.
- In 2008, the SFI directly supported 2,812 research jobs in teams where leaders leveraged a further 3076 jobs from other sources of funding.

The rise in PhD graduate numbers is the result of initiatives including the Programme for Research in Third Level Institutions (PRTLTI) and the Strategy for Science, Technology and Innovation, which aim to ensure Ireland’s position as a leader in the knowledge economy, and as a centre of research excellence.

It is projected that the annual number of PhD graduates will reach 1,300 by 2013. On 1 March 2009, there were 5,945 PhD students enrolled in third level institutions in Ireland including 2017 in Science; 867 in Engineering and Manufacturing; and 885 in Social Science, Business and Law.

In summary, the benefits PhD graduates bring to firms are manifold: new knowledge, working methods, a personal network, "knowledge of knowledge", and the ability to perform a number of functions that are crucial to the innovation process primarily solving complex problems, "gate keeping", knowledge translation and knowledge absorption.

Increased numbers of PhD Graduates in the Biotechnology, BioPharma, Software and Engineering fields will act as a magnet for foreign direct investment. They will also help indigenous companies innovate and compete in emerging high tech global markets. If we are to fully embrace the smart/knowledge economy it is essential that we invest further in fourth level education and continue to increase our PhD output.

I would like to acknowledge the valuable information on PhDs produced by the Higher Education Authority, the Science Foundation of Ireland and the Department of Enterprise, Trade and Innovation.

**Padraic A. White**  
**Executive Chairman**  
**Collins McNicholas Recruitment & HR Services Group**

## About the Collins McNicholas Survey

### *Relevant Assumptions*

- The Galway Office is the longest established (1990) within the Collins McNicholas Group and the greater number of PhD graduates registered with the office will be reflected in the survey.
- Collins McNicholas is a nationally based recruitment and HR services company and is differentiated from its competitors by its strong market presence in the regions. The number of PhD graduates registered on the Dublin database is proportionately less in comparison to the representation of PhD graduates registered with the other offices.
- Of the 2,018 PhD graduates surveyed from the Collins McNicholas database, 73% were graduates of a science related discipline. Collins McNicholas' strength in recruiting for the Pharmaceutical and Medical Devices sectors reflects this statistic.

## About Collins McNicholas

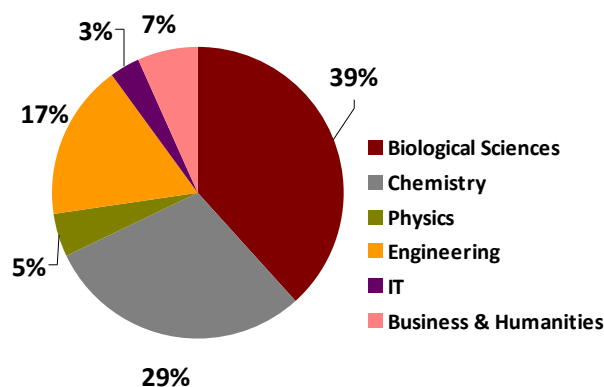
Established in 1990 and celebrating 20 years in business, Collins McNicholas is an Irish based Recruitment and HR Services Company that sources executive, professional and administrative personnel for its client companies. With five offices in Dublin, Cork, Galway (*Headquarters*), Sligo and Athlone - it is the only nationally based recruitment company headquartered outside of Dublin.

## 2. SURVEY HIGHLIGHTS

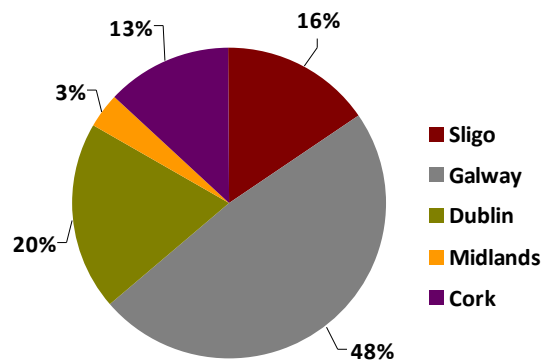
- According to the results of the survey, the highest percentage (48%) of PhD graduates registered with Collins McNicholas nationwide is in the Galway office - 969 PhD graduates in total
- Dublin and Sligo follow with 399 (20%) and 314 (16%) respectively
- The Cork office holds 13% or a total of 266 PhD Graduates registered and the Midlands 70 (3%) in total
- Of those surveyed, 39% of PhD graduates registered with Collins McNicholas across all regions, qualified with a doctorate in Biological Sciences (775 in total)
- The field of Chemistry came out in second place (29%) with 595 PhD Graduates registered in the company's database in total across all regions surveyed
- Engineering PhD graduates accounted for 17% of the total number surveyed, with the Galway office holding the greatest percentage of graduates (68%)

Branch	Biological Sciences	Chemistry	Physics	Engineering	IT	Business & Humanities	Total
Sligo	125	110	15	26	14	24	314
Galway	421	196	44	236	29	43	969
Dublin	127	170	20	33	18	31	399
Athlone	25	28	2	8	1	6	70
Cork	77	91	15	47	5	31	266
<b>Total</b>	<b>775</b>	<b>595</b>	<b>96</b>	<b>350</b>	<b>67</b>	<b>135</b>	<b>2018</b>

**Table 2.1** Total PhD Graduates registered with Collins McNicholas offices nationwide



**Chart 1.1** Total PhD Graduates Registered with Collins McNicholas Offices by Discipline”.

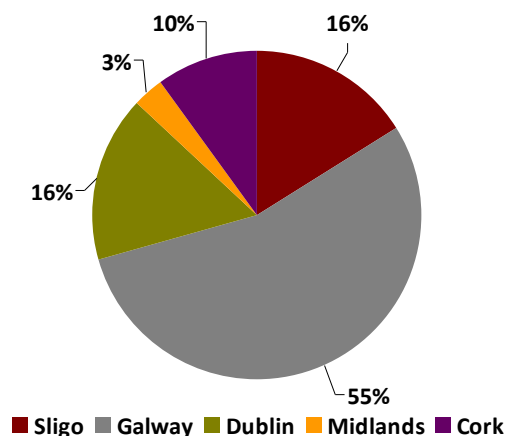


**Chart 1.2** Total PhD Graduates Registered with Collins McNicholas Offices by Region”

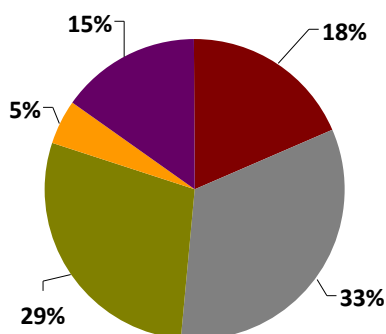
## 3. ANALYSIS BY DISCIPLINE

### 3.1 Biological Science PhD Graduates registered

- According to the results of the survey, the Collins McNicholas Galway office has the greatest number (421) of Biological Science PhD graduates (55% of the total) registered
- The Dublin and Sligo offices both hold 16% of the total Biological Science PhD graduates registered
- The Midlands office has the least percentage of PhD graduates registered within Biological Sciences (3%)



### 3.2 Chemistry PhD Graduates registered

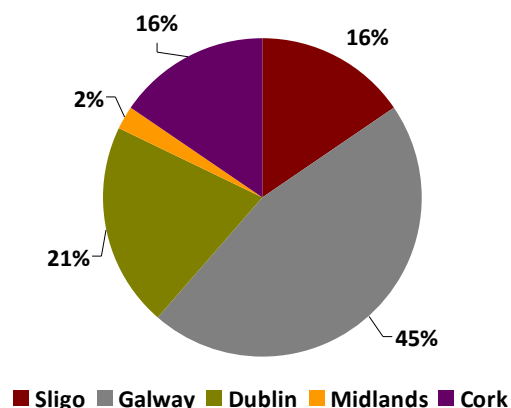


- The greatest number of PhD graduates of Chemistry (196) are registered with Collins McNicholas Galway; 33% of the total number (595) registered within this discipline
- Dublin holds 29% (170 people) of the total number of Chemistry PhD graduates (595) registered with the recruitment group

■ Sligo ■ Galway ■ Dublin ■ Midlands ■ Cork

### 3.3 Physics PhD Graduates registered

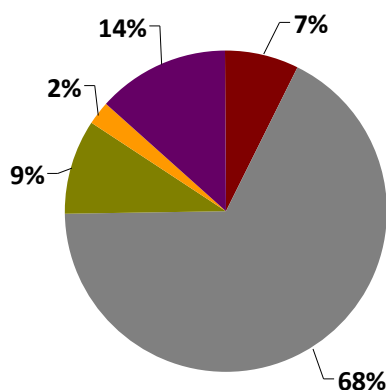
- According to the results of the survey, Collins McNicholas in Galway has the greatest number (44) of Physics PhD graduates (45% of the total) registered
- The Dublin office follows with 20 PhD graduates (21% of the total)
- The Sligo and Cork office each hold 16% (15 graduates) of the total Physics number registered



■ Sligo ■ Galway ■ Dublin ■ Midlands ■ Cork

### 3. ANALYSIS BY DISCIPLINE

#### 3.4 Engineering PhD Graduates registered

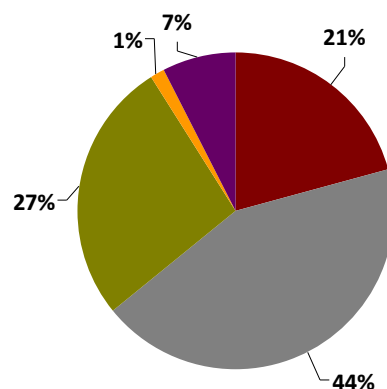


■ Sligo ■ Galway ■ Dublin ■ Midlands ■ Cork

- The greatest number of PhD graduates of Engineering (236) are registered with Collins McNicholas Galway; 68% of the total number (350) of all offices registered within this discipline
- The Cork office held 14% of the registered Engineering PhD graduates (47) within the Recruitment Group

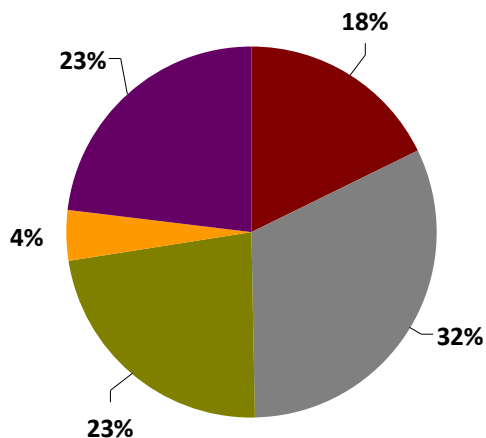
#### 3.5 IT PhD Graduates registered

- A total of 67 IT PhD Graduates are registered on the Collins McNicholas database; 44% of these (29 people surveyed) are registered with the Galway office
- Dublin and Sligo followed with 27% and 21% of IT PhD Graduates registered respectively



■ Sligo ■ Galway ■ Dublin ■ Midlands ■ Cork

#### 3.6 Business and Humanities PhD Graduates registered



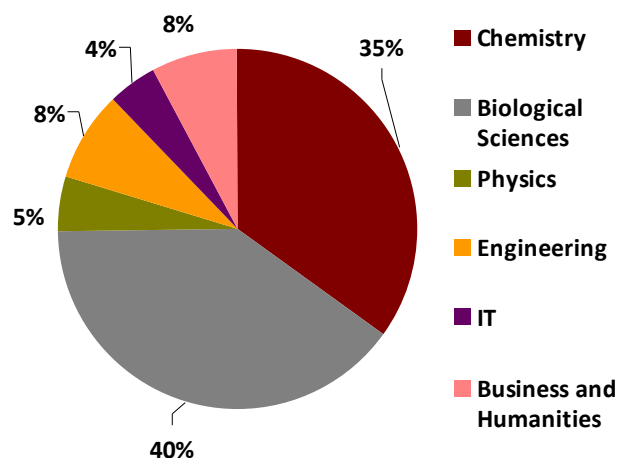
■ Sligo ■ Galway ■ Dublin ■ Midlands ■ Cork

- Collins McNicholas Galway has the greatest number of Business and Humanities PhD graduates registered; 43 out of the total within the group of 135 (32%)
- Dublin and Cork follow, both having 23% of the Recruitment Group's Business and Humanities PhD graduates
- The Sligo office had 18% of the PhD graduates registered

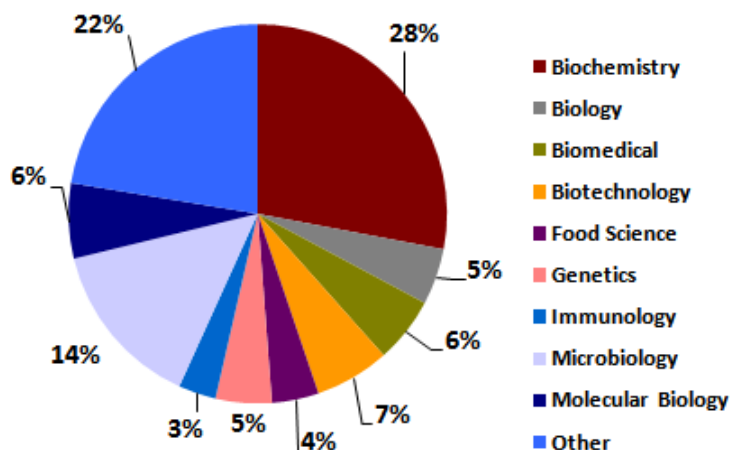
## 4. ANALYSIS BY REGION

### 4.1 Sligo - Total PhD Graduates registered

- There is a high number of PhD graduates registered with Collins McNicholas in Sligo (314 in total)
- Biological Sciences accounted for 40% of the registered graduates surveyed, followed by Chemistry (35%) and both Engineering and Business and Humanities 8%
- The remaining PhD graduates surveyed held a PhD in Physics (5%), and IT (4%)



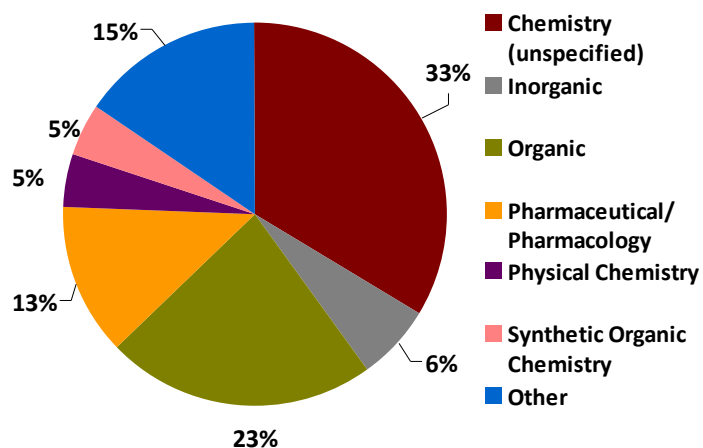
#### 4.1.1 Sligo - Biological Sciences PhD graduates registered



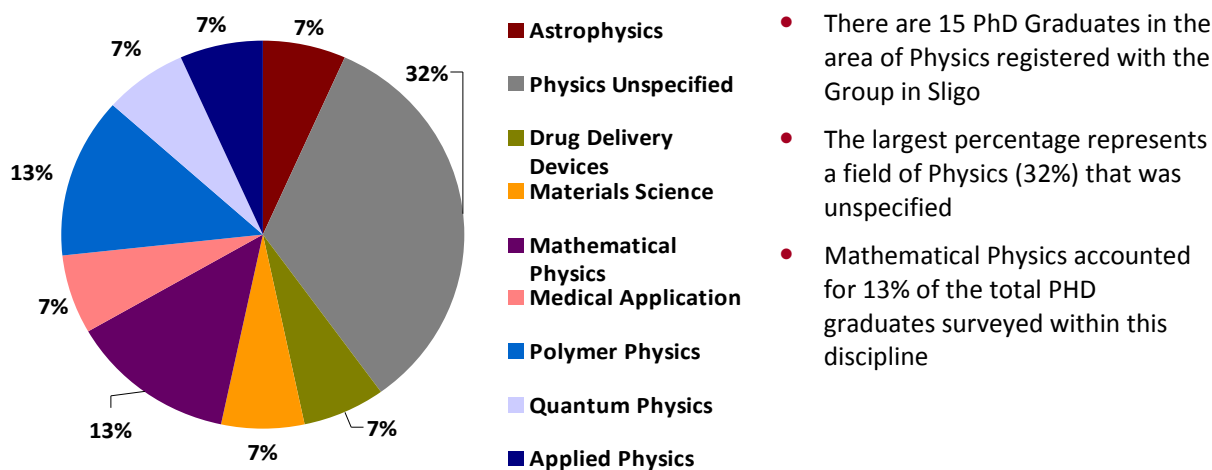
- The results of the survey reveal that the highest percentage (40%) of PhD graduates in the Sligo branch was in the Biological Sciences (125)
- Biochemistry (29%) and Immunology (22%) were the top two fields of study within this discipline
- Microbiology accounted for 14% of the Biological Science graduates

#### 4.1.2 Sligo – Chemistry PhD graduates registered

- There are 110 Chemistry PhD graduates registered with Collins McNicholas Sligo
- Almost a quarter is within the Organic Chemistry field (23%) and 13% in Pharmaceutical/ Pharmacological field
- A total of 33% of PHD Chemistry graduates surveyed in the Sligo office did not specify their field

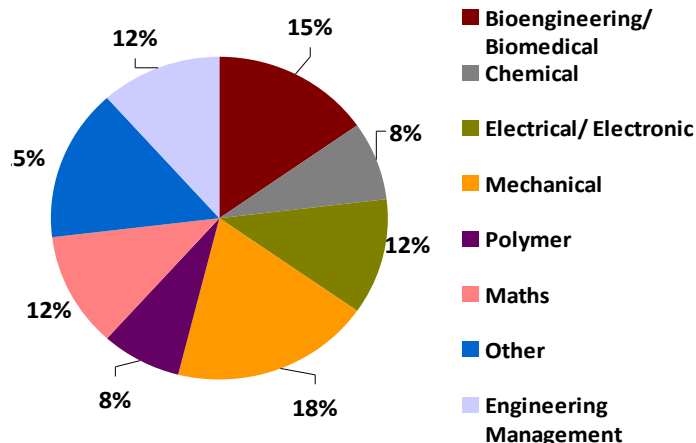


### 4.1.3 Sligo - Physics PhD Graduates registered



### 4.1.4 Sligo - Engineering PhD Graduates registered

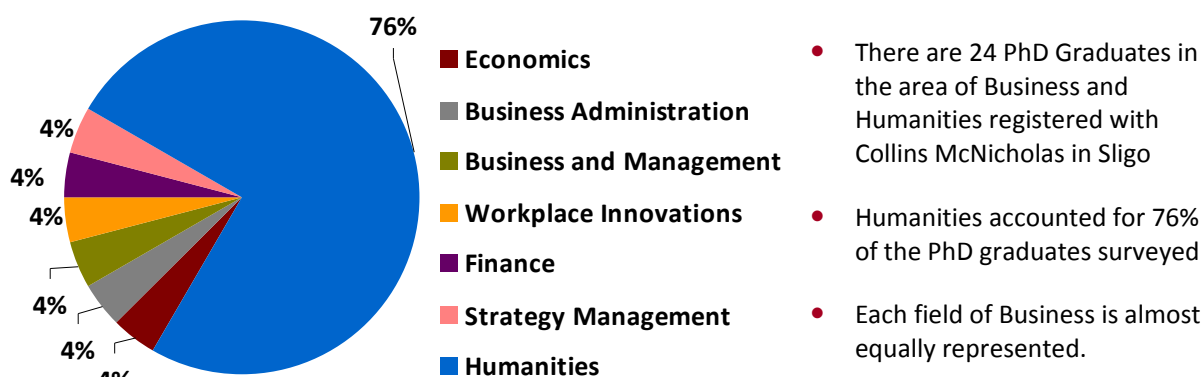
- The results of the survey show that Engineering PhD graduates registered with Collins McNicholas Sligo account for 7% (26 people) of the total Engineering PhD graduates registered with the group (350)
- The greatest number was in the Mechanical (18%), Biomedical (15%) and Engineering Management (12%) fields



### 4.1.5 Sligo - IT PhD Graduates registered

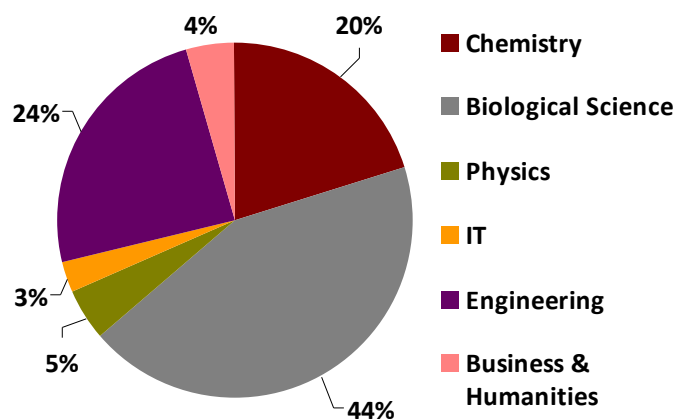
- There are 14 IT PhD graduates registered with Collins McNicholas in Sligo, 10% of which did not specify their field of IT

### 4.1.6 Sligo - Business & Humanities PhD Graduates registered

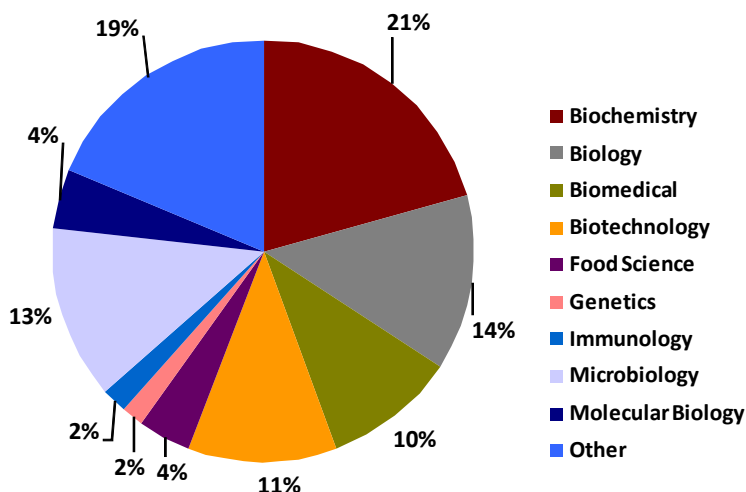


## 4.2 Galway- Total PhD graduates registered

- The survey reveals that there are 954 PhD graduates in the Galway area registered with Collins McNicholas
- The Biological Sciences field has the largest percentage (44%)
- This is followed by PhD graduates in Engineering (24%) and Chemistry (20%)



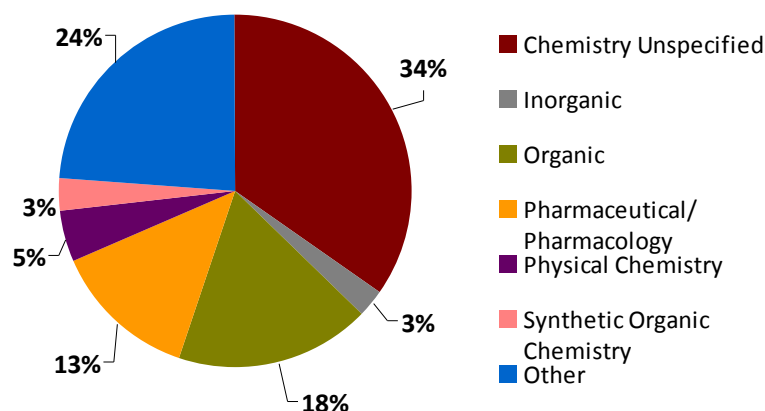
### 4.2.1 Galway - Biological Science PhD graduates registered



- Within the Biological Sciences, the largest percentage of PhD Graduates registered was in Biochemistry (20%)
- 19% of Biological Science PhD graduates registered with Galway were qualified in an “Other” field

### 4.2.2 Galway - Chemistry PhD Graduates registered

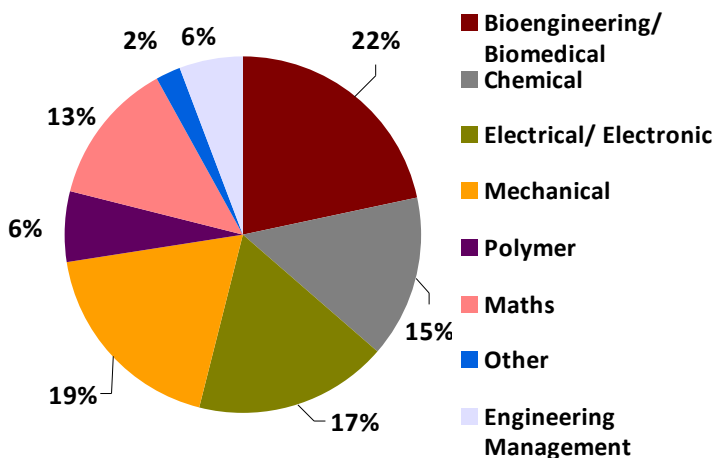
- According to the survey, the highest percentage of Chemistry PhD Graduates in Galway, hold a PhD in Chemistry which was unspecified
- Other popular fields include Pharmaceutical/Pharmacology, Organic Chemistry and Physical Chemistry



### 4.2.3 Galway - Physics PhD Graduates registered

- There are 44 Physics PhD Graduates registered in the Galway office representing 100%. Their specific field of Physics was unspecified.

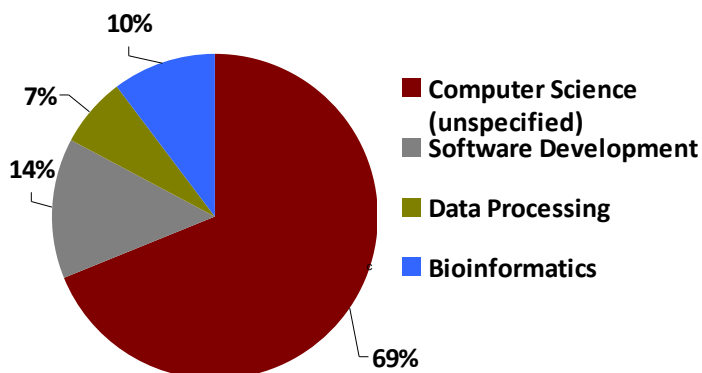
### 4.2.4 Galway - Engineering PhD Graduates registered



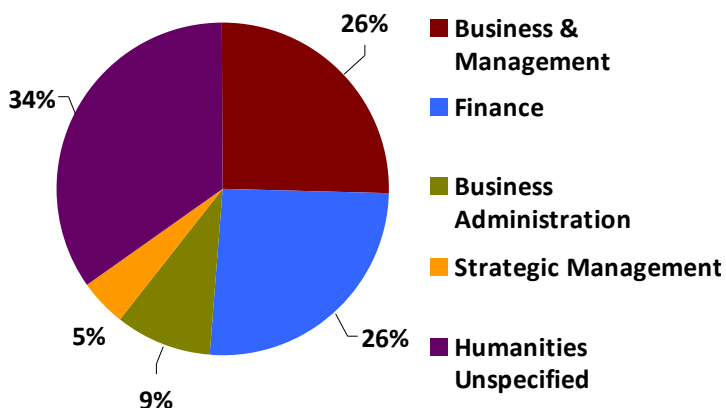
- There are 236 Engineering PhD Graduates in the Galway region in total registered on the Collins McNicholas database
- Bioengineering/Biomedical Engineering represents 22% followed by Mechanical Engineering at 19%
- The least discipline represented was Engineering Management and Polymer Engineering Graduates both accounting for only 6% of the total

### 4.2.5 Galway - IT PhD Graduates registered

- The survey revealed that a total of 29 IT PhD Graduates were registered with the Galway office
- The dominant field in this discipline is Computer Science which holds the highest percentage of Graduates (69%)



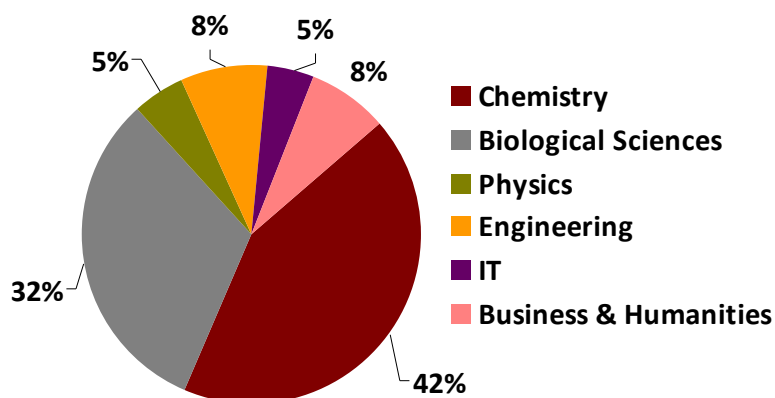
### 4.2.6 Galway- Business and Humanities PhD Graduates registered



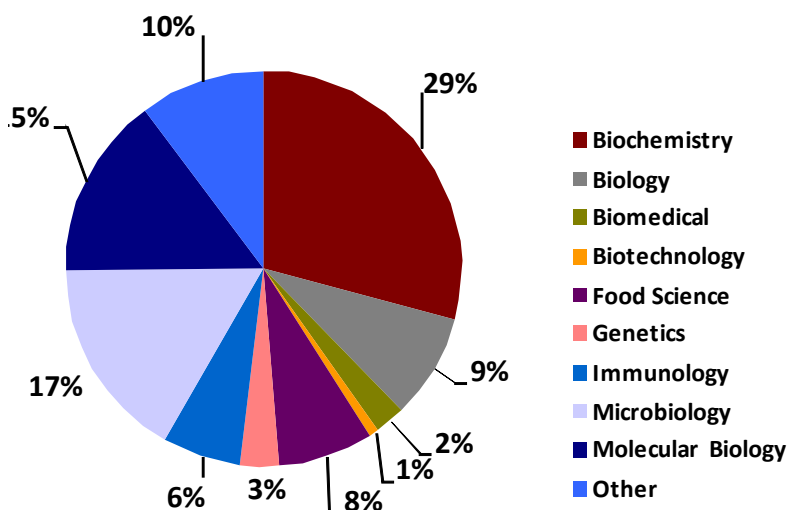
- There are 43 Business and Humanities PhD Graduates registered with Collins McNicholas in Galway
- The most popular fields are Finance and Business & Management, both representing 26% of the total
- Strategic Management represented only 5% of the 43 PHD graduates surveyed within this area.

### 4.3 Dublin - Total PhD Graduates registered

- There are 399 PhD Graduates registered with Collins McNicholas in the Dublin region
- The field of Chemistry held the greatest number of graduates 42% (170 graduates) followed by Biological Sciences 32% (127 graduates)
- Engineering and Business and Humanities both held 8% of the total



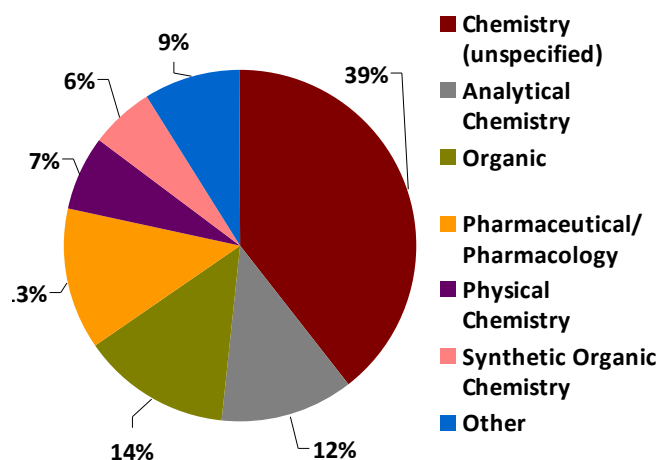
#### 4.3.1 Dublin - Biological Science PhD Graduates registered



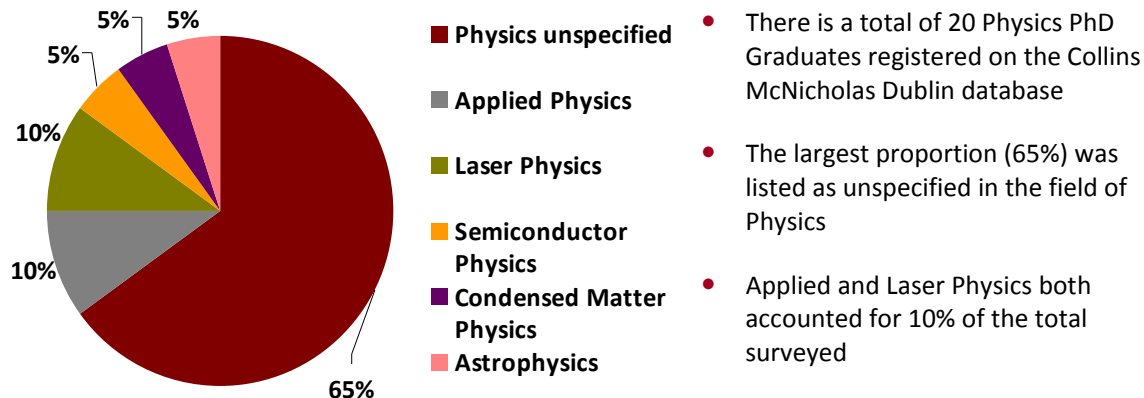
- Biological Science Graduates holding a PhD make up 32% of total PhD Graduates (399 graduates) registered with Collins McNicholas in Dublin
- Biochemistry represents the largest portion (29%) of Biological Science Graduates
- Those graduates with a PhD in Microbiology accounted for 17% and Molecular Biology 15% of the total

#### 4.3.2 Dublin- Chemistry PhD Graduates registered

- The total number of Chemistry PhD Graduates is 170 registered with Collins McNicholas in the Dublin Area
- Of the total number surveyed 39% of graduates did not specify a specific field of Chemistry
- Organic Chemistry represents 14% of the graduates surveyed

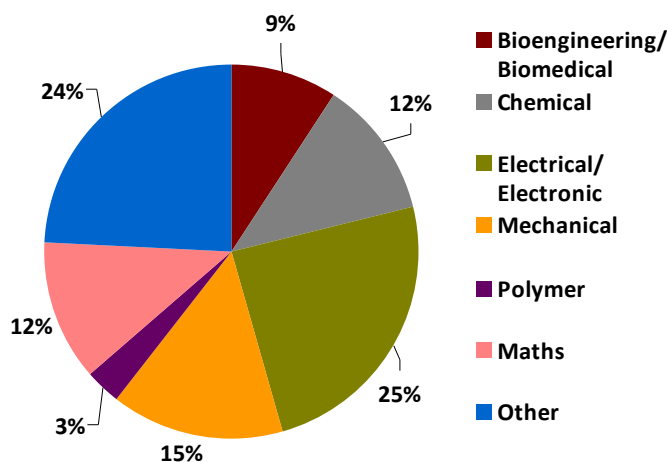


### 4.3.3 Dublin - Physics PhD Graduates registered

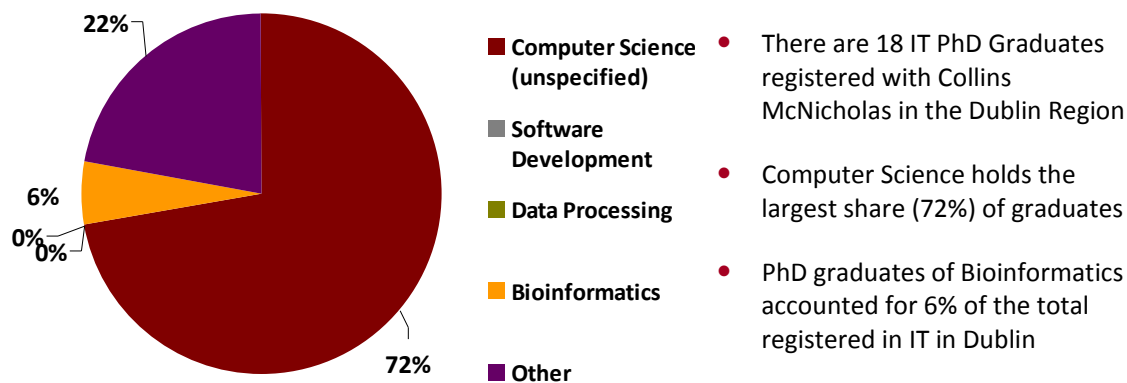


### 4.3.4 Dublin - Engineering PhD Graduates registered

- There are 33 Engineering PhD Graduates registered with the Dublin office
- Electrical Engineering holds the largest proportion of the graduates (25%)

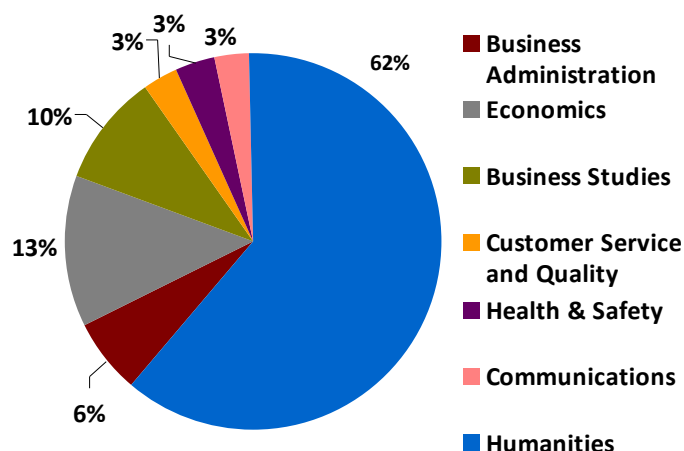


### 4.3.5 Dublin - IT PhD Graduates registered

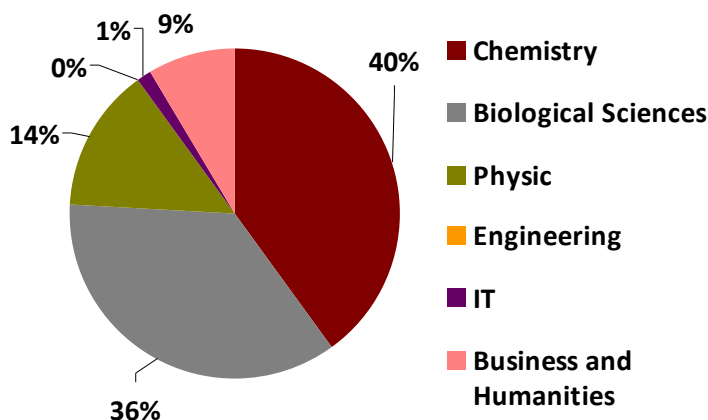


### 4.3.6 Dublin - Business and Humanities PhD Graduates registered

- There are 31 Business and Humanities PhD Graduates registered with Collins McNicholas in Dublin
- Humanities accounts for 62% of the graduates surveyed
- Economics (13%) is the most popular field of study within Business Studies



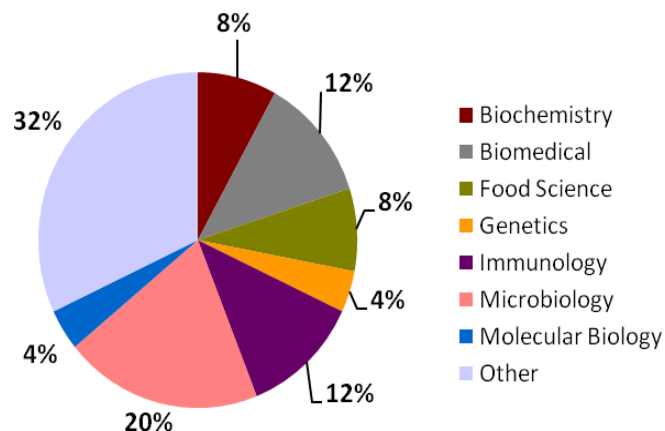
### 4.4 Midlands - Total PhD Graduates registered



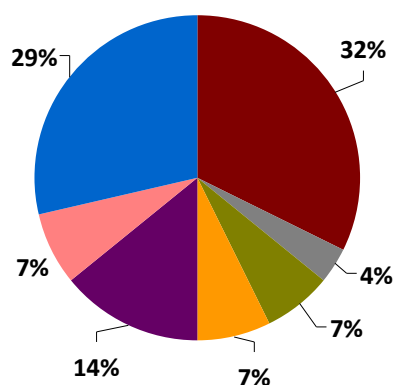
- There are 70 PhD Graduates registered with Collins McNicholas in the Athlone office
- The field of Chemistry holds the most Graduates (40%) followed closely by Biological Science Graduates (36%)

#### 4.4.1 Midlands- Biological Science PhD Graduates registered

- There are 25 Biological Science PhD Graduates registered with Collins McNicholas in the Athlone
- Microbiology accounted for 20% of the total number surveyed within this discipline
- Graduates of Biomedical and Immunology both accounted for 12%



#### 4.4.2 Midlands - Chemistry PhD Graduates registered



- Chemistry (unspecified)
- Analytical Chemistry
- Organic / Inorganic
- Pharmaceutical/ Pharmacology
- Physical Chemistry
- Synthetic Organic Chemistry
- Other

- There are 28 Chemistry PhD Graduates registered with Collins McNicholas in the Athlone area
- The largest percentage (32%) of graduates is in the area of Chemistry Unspecified
- Physical Chemistry accounted for 14% of the total number of PHD graduates surveyed within this discipline

#### 4.4.3 Midlands - Physics PhD Graduates registered

- There are only 2 Physics PhD Graduates registered with Collins McNicholas in Athlone. They are in the areas of Physics and Astrophysics

#### 4.4.4 Midlands - Engineering PhD Graduates registered

- There are eight Engineering PhD Graduates registered with Collins McNicholas in Athlone

#### 4.4.5 Midlands - IT PhD Graduates registered

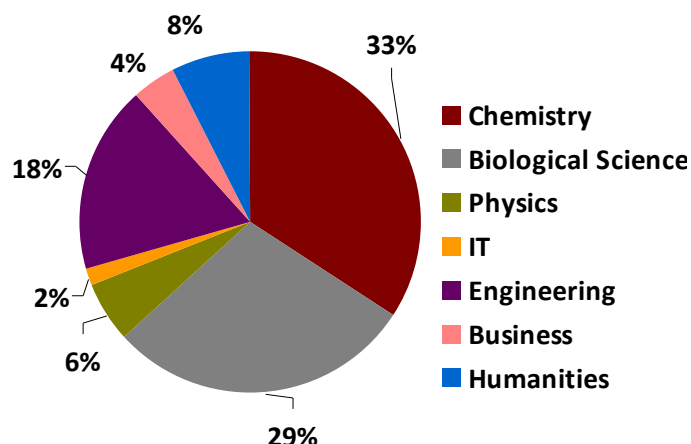
- There is one IT PhD Graduate registered with the Athlone office. This person carried out a PhD in Applied Management - ISM Information

#### 4.4.6 Midlands - Business and Humanities PhD Graduates registered

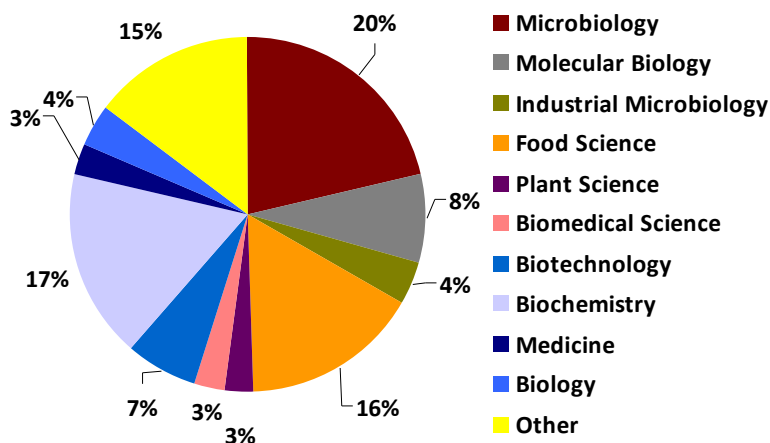
- There are 4 Business and Humanities PhD graduates registered with Collins McNicholas in Athlone

## 4.5 Cork - Total PhD Graduates registered

- There are 266 PhD Graduates registered with Collins McNicholas in Cork
- Chemistry held the greatest number of candidates registered in Cork accounting for 33% of the total surveyed
- The second most popular field of research is Biological Science accounting for 29% of PhD graduates surveyed.



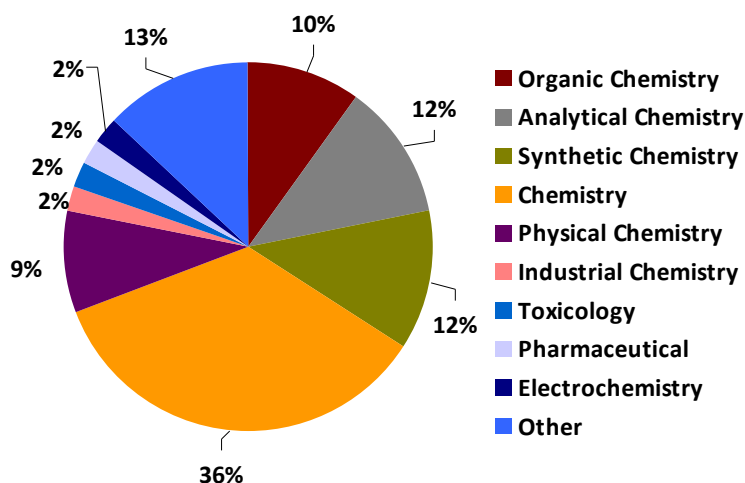
### 4.5.1 Cork - Biological Sciences PhD Graduates registered



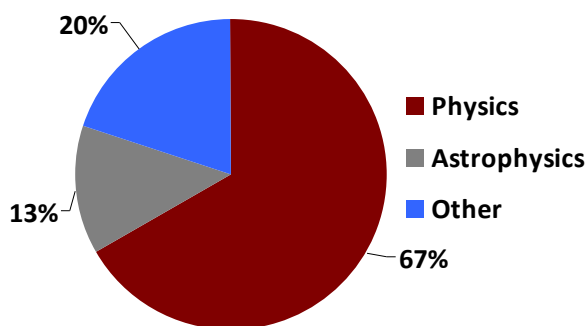
- There are 77 PhD Graduates in the field of Biological Sciences registered with Cork
- Microbiology is represented by the largest portion under Biological Sciences (20%)
- Graduates of Biochemistry (17%) and Food science (16%) were almost equally represented in the Cork office

### 4.5.2 Cork - Chemistry PhD Graduates registered

- There are 91 Chemistry PhD Graduates registered with Collins McNicholas in Cork
- The largest portion is represented by pure Chemistry (36%), followed by Synthetic (12%) and Analytical Chemistry (12%)
- The lowest number of PhD graduates registered on the Cork database was in Electrochemistry, Toxicology and Industrial Chemistry



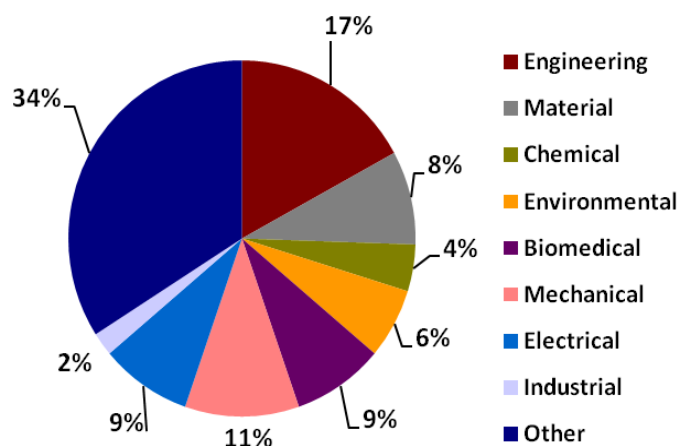
### 4.5.3 Cork - Physics PhD Graduates registered



- There are 15 Physics PhD Graduates registered with the Cork office
- The most popular field of research within Physics is pure Physics accounting for 67% of the graduates

### 4.5.4 Cork - Engineering PhD Graduates registered

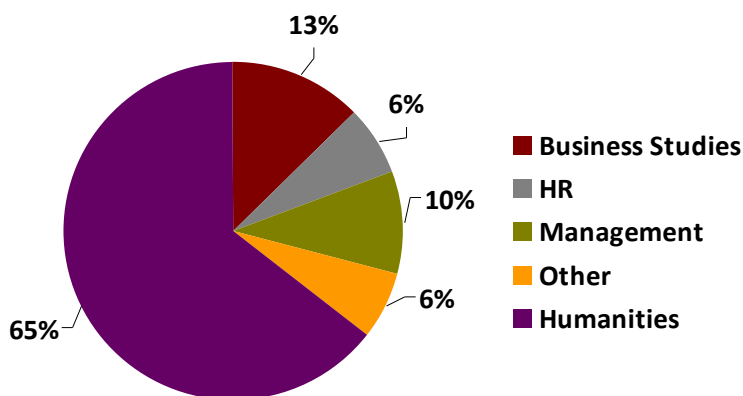
- There are 47 Engineering PhD Graduates registered with Collins McNicholas in Cork with qualifications in many areas of Engineering
- They include Mechanical (11%), Electrical (9%), Material Engineering (9%), Biomedical (9%), Environmental (6%) and Industry (2%)



### 4.5.5 Cork - IT PhD Graduates

- There are only 5 IT PhD Graduates registered with Collins McNicholas in Cork

### 4.5.6 Cork - Business and Humanities PhD Graduates registered



- There are 31 Business and Humanities PhD Graduates registered with Collins McNicholas in Cork
- A total of 20 PhD graduates surveyed qualified in Humanities (65%)
- Business Studies (13%) and Management (10%) are the most popular areas of study within Business

## 5. REFERENCES

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