



University-Business Engagement Survey

Page 1

Welcome to the Royal Society of Chemistry's university-business engagement survey

This survey is part of the Royal Society of Chemistry *University-Business Engagement Project* in partnership with Heads of Chemistry UK (HCUK). The project will build a picture of how university chemistry departments across the UK and Republic of Ireland interact with industry partners to support research, enterprise and skills development. **The deadline for completion is Friday 18 March.** The survey has been designed in collaboration with representatives from HCUK. It is split into three sections:

1. Research and its impact;
2. Staff/student enterprise and university spinout ventures;
3. Teaching and training designed to increase the employability of chemistry students.

The survey is designed to enable different sections to be completed simultaneously by different members of staff in your department or university. You can click the 'Save and Continue' button at any stage and this will generate a department-specific URL to re-access your survey responses. You can supply an email address to which this URL will be sent, or copy and save the URL. Forwarding this URL to other members of staff will enable them to edit your department's responses. The full set of survey questions can be downloaded and printed as a Word or .pdf file (from the next page) to help with your data gathering.

As a rough estimate, it may take a few days to pull together the relevant information and once the information is to hand, the data input should take no longer than a couple of hours.

Thank you for your support with this project. If you have any questions or would like to arrange help completing this survey, please send an email to UBESurvey@rsc.org.

For the best experience we recommend that you use either Mozilla Firefox or Google Chrome as your browser to complete the survey.

About your institution

What is the name of your institution and department?

Contact details

We may wish to contact you for further details/follow-up conversations about your survey responses.

Please provide details for the person in your department who should be our main point of contact. This information will be stored confidentially and only used to support RSC university-business engagement activities.

Title

- Mr
- Ms
- Dr
- Prof
- Other

First name

Last name

Job title

Email address

Type here

Contact number

Type here

Contact address

Type here

Postcode

Type here

1. Contribution to research and impact

The following questions refer to collaborative research with companies started in the last three academic years (i.e. Sept 2012 - Sept 2015).

This can include collaborative research with companies that are also involved with other departments, both within and outside your institution. It **does not include** fees for service interactions with chemical science businesses e.g. consultancy or analytical services.

Please provide the total number of companies your department has worked with on collaborative research started in the last three academic years (Sept 2012 - Sept 2015):

[\(sizebreakdownresearch\)](#)

Please provide an approximate breakdown in numbers of these companies by size category:

SME (micro, small and medium enterprises with <250 employees)

Large (> 250 employees)

Consortium (collaboration involving two or more companies - please provide the number of companies that are involved in consortium-based collaborations)

1.1. Contribution to research and impact

The following questions refer to collaborative research with companies started in the last three academic years (i.e. Sept 2012 - Sept 2015).

We are now going to ask about your department's interactions with companies from three different size categories: large, SME and consortia.

For the sections focusing on **SMEs and large companies**, please provide the number of distinct companies in these categories that are involved in **single-partner collaborations**.

For the section focusing on consortia, a **consortium** refers to a collaboration that involves a combination of **two or more industry partners**. Please provide the number of companies that are involved in consortium-based collaborations.

Research collaborations with large companies

All of the following questions look at the breakdown in numbers of the nature of your department's research collaborations with large companies (> 250 employees). The numbers you provide can be estimates but please aim to ensure these are as accurate as is feasible.

Of the {{ sizebreakdownresearch.1 }} research collaborations that your department has with large companies, started over the last three years, what is the breakdown for each of the following sectors?

	Number
Chemicals	Type here
Energy	Type here
Life sciences/pharmaceuticals	Type here
Agrochemicals	Type here
Water; environmental health and safety	Type here
Consumer goods	Type here
Other, please specify	Type here

How many of these collaborations are with companies that your department

	Number
Had an established relationship with? (relationship in place > 3 years ago)	Type here
Had not previously worked with?	Type here

For these research collaborations with large companies, which of the following funding sources has your department used?

Please tick all that apply.

EPSRC

BBSRC

- MRC
- NERC
- InnovateUK
- HEIF
- Wellcome Trust
- EU
- Other international funding
- Fully funded by industry
- Other, please specify...

Type here

For these research collaborations with large companies, which of the following funding schemes has your department used?

Please tick all that apply.

- iCASE/CASE
- KTP
- PPP
- Impact acceleration grants
- Completely industry funded
- Other, please specify...

Type here

How many of these collaborations involve:

	Number
Single discipline: collaboration predominantly/exclusively chemistry-based	Type here
Two disciplines: collaboration with similar level of involvement from one additional discipline (either within your university or from another university)	Type here
Multiple disciplines: collaboration with similar level of involvement from at least two additional disciplines (either within your university or from another university)	Type here

How many of these collaborations were/are:

	Number
Underpinning science: research collaboration in area of common interest to develop fundamental understanding	Type here
Applied research: investigation to assess scope and applications of underpinning science	Type here
Other, please specify	Type here

How many of these collaborations resulted in or are likely to result in each of the following primary outputs?

	Number
Publication	Type here
Patent	Type here
Licence	Type here
Other, please specify	Type here

How many of these collaborations involved access to specialist equipment or facilities?

	Number
Use of company equipment/facilities by university	Type here
Use of university equipment/facilities by company	Type here

How many of these collaborations involved people exchange?

	Number
From the company to the university	Type here
From the university to the company	Type here

What mechanisms does your department currently use to source large companies that may be interested in research collaborations?

Please tick all that apply.

- Alumni networks
- Personal connections
- Local organisations
- Knowledge Transfer Network (KTN)
- Other (please specify)

Type here

1.2. Contribution to research and impact

The following questions refer to collaborative research with companies started in the last three academic years (i.e. Sept 2012 - Sept 2015).

Research collaborations with SMEs

All of the following questions look at the breakdown in numbers of the nature of your department's research collaborations with SMEs (micro, small and medium sized enterprises with < 250 employees). The numbers you provide can be estimates but please aim to ensure these are as accurate as is feasible.

Of the {{ sizebreakdownresearch.0 }} research collaborations that your department has with SMEs, started over the last three years, what is the breakdown for each of the following sectors?

	Number
Chemicals	Type here
Energy	Type here
Life sciences; pharmaceuticals	Type here
Agrochemicals	Type here
Water; environmental health and safety	Type here
Consumer goods	Type here
Other, please specify	Type here

How many of these collaborations are with companies that your department

	Number
Had an established relationship with? (relationship was in place > 3 years ago)	Type here
Had not previously worked with?	Type here

For these research collaborations with SMEs, which of the following funding sources has your department used?

Please tick all that apply.

- EPSRC
- BBSRC
- MRC
- NERC
- InnovateUK
- HEIF

- Wellcome Trust
- EU
- Other international funding
- Fully funded by industry
- Other, please specify...

Type here

For these research collaborations with SMEs, which of the following funding schemes has your department used?

Please tick all that apply.

- iCASE/CASE
- KTP
- PPP
- Impact acceleration grants
- Completely industry funded
- Other, please specify...

Type here

How many of these collaborations involve:

	Number
Single discipline: collaboration predominantly/exclusively chemistry-based	Type here
Two disciplines: collaboration with similar level of involvement from one additional discipline (either within your university or from another university)	Type here
Multiple disciplines: collaboration with similar level of involvement from at least two additional disciplines (either within your university or from another university)	Type here

How many of these collaborations were/are:

	Number
Underpinning science: research collaboration in area of common interest to develop fundamental understanding	Type here
Applied research: investigation to assess scope and applications of underpinning science	Type here
Other, please specify	Type here

How many of these collaborations resulted in or are likely to result in each of the following primary outputs?

	Number
Publication	Type here
Patent	Type here
Licence	Type here
Other, please specify	Type here

How many of these collaborations involved access to specialist equipment or facilities?

	Number
Use of company equipment/facilities by university	Type here
Use of university equipment/facilities by company	Type here

How many of these collaborations involved people exchange?

	Number
From the company to the university	Type here
From the university to the company	Type here

What mechanisms does your department currently use to source SMEs that may be interested in research collaborations?

Please tick all that apply.

- Alumni networks
- Personal connections
- Local organisations
- Knowledge Transfer Network (KTN)
- Other (please specify)

Type here

1.3. Contribution to research and impact

The following questions refer to collaborative research with companies started in the last three academic years (i.e. Sept 2012 - Sept 2015).

Research collaborations with consortia

All of the following questions look at the nature of your department's research collaborations with industry consortia. For the purposes of this survey, a consortium refers to a collaboration that involves two or more companies. The numbers you provide can be estimates but please aim to ensure these are as accurate as is feasible.

Please provide the total number of companies that are involved in consortium-based collaborations.

Of the {{ sizebreakdownresearch.2 }} research collaborations that your department has with consortia, started in the last three years, please provide a breakdown by sector of the companies that make up these consortia:

	Number
Chemicals	Type here
Energy	Type here
Life sciences/pharmaceuticals	Type here
Agrochemicals	Type here
Water; environmental health and safety	Type here
Consumer goods	Type here
Other, please specify	Type here

How many of these collaborations are with consortia that your department

	Number
Had an established relationship with? (relationship in place > 3 years ago)	Type here
Had not previously worked with?	Type here

For these research collaborations with consortia, which of the following funding sources has your department used?

Please tick all that apply.

- EPSRC
- BBSRC
- MRC
- NERC
- InnovateUK

- HEIF
- Wellcome Trust
- EU
- Other international funding
- Fully funded by industry
- Other, please specify...

Type here

For these research collaborations with consortia, which of the following funding schemes has your department used?

Please tick all that apply.

- iCASE/CASE
- KTP
- PPP
- Impact acceleration grants
- Completely industry funded
- Other, please specify...

Type here

How many of these collaborations involve:

	Number
Single discipline: collaboration predominantly/exclusively chemistry-based	Type here
Two disciplines: collaboration with similar level of involvement from one additional discipline (either within your university or from another university)	Type here
Multiple disciplines: collaboration with similar level of involvement from at least two additional disciplines (either within your university or from another university)	Type here

How many of these collaborations were/are:

	Number
Underpinning science: research collaboration in area of common interest to develop fundamental understanding	Type here
Applied research: investigation to assess scope and applications of underpinning science	Type here
Other, please specify	Type here

How many of these collaborations resulted in or are likely to result in each of the following primary outputs:

	Number
Publication	Type here
Patent	Type here
Licence	Type here
Other, please specify	Type here

How many of these collaborations involved access to specialist equipment or facilities?

	Number
Use of company equipment/facilities by university	Type here
Use of university equipment/facilities by company	Type here

How many of these collaborations involved people exchange?

	Number
From the company to the university	Type here
From the university to the company	Type here

What mechanisms does your department currently use to source consortia that may be interested in research collaborations?

Please tick all that apply.

- Alumni networks
- Personal connections
- Local organisations
- Knowledge Transfer Network (KTN)
- Other (please specify)

Type here

1.4. Contribution to research and impact

Use of available resources to support research collaboration started within the last three academic years (i.e. Sept 2012 - Sept 2015).

What is your department's current level of engagement with the Knowledge Transfer Network (KTN)?

- High: KTN is a key source of new collaboration opportunities
- Medium: KTN is a resource to help support existing collaboration opportunities
- Low: little or no engagement with the KTN

Any other comments:

Type here

What is your department's current level of engagement with your Local Enterprise Partnership (LEP)?

- High: LEP plays a leading role in collaboration opportunities
- Medium: LEP contributes significantly to collaboration opportunities
- Low: little or no engagement with LEP

Any other comments:

Type here

Is your department part of a cluster/club involving industry partners?

- Yes, please provide details
- No

Type here

What level of involvement does your university's Research Contract Office (RCO) have in supporting research collaborations?

- Lead: RCO plays a leading role in facilitating collaborations

Partner: RCO is a key partner in facilitating collaborations

Support: RCO provides input to collaborations on request

Any other comments:

Type here

What level of involvement does your university's Technology Transfer Office (TTO) have in supporting the commercialisation outputs of research collaborations?

Lead: TTO plays a leading role in facilitating commercialisation of research outputs

Partner: TTO is a key partner in facilitating commercialisation of research outputs

Support: TTO provides input to commercialisation of research outputs on request

Any other comments:

Type here

What system does your department currently use for Intellectual Property (IP) agreements?

Lambert

Easy Access IP

Other, please specify...

Type here

Does your department use an Industrial Advisory Board to provide input on research collaboration?

Yes

No, please outline alternative model used

Type here

1.5. Contribution to research and impact

Success factors and barriers to collaborative research with industry.

In your opinion, what are the top three success factors for effective collaborations?

This list of factors is drawn from the *Dowling Review of Business-University Research Collaborations* (Figure 11 – Top ten success factors for a successful collaboration).

Please select **three options** from the list below and **rank** them by typing a **1, 2 or 3** into the adjacent text field.

	Rank
Ability of, and opportunities for, staff to work across institutional boundaries	Type here
Willingness to devote time and resources from both parties	Type here
Collaboration brings mutual benefits	Type here
Mutual understanding between partners	Type here
Clear and effective communication between partners	Type here
Strong and trusting personal relationships	Type here
Funding available	Type here
Processes for agreeing contracts and IP are in place	Type here
Support from the industrial organisation, including senior management buy-in and championing	Type here
Shared vision, goals and objectives defined, with clear expectations	Type here
Other, please specify...	Type here

In your opinion, what are the top three obstacles to effective collaborations?

This list of factors is drawn from the *Dowling Review of Business-University Research Collaborations* (Figure 12 – Top ten most highly cited barriers to collaboration for universities).

Please select **three options** from the list below and **rank** them by typing a **1, 2 or 3** into the adjacent text field.

	Rank
Tension between academic desire to publish work and business concerns over competition	Type here
IP and other contract negotiations are difficult to complete, processes difficult to navigate, or take too long	Type here
Low overall levels of business investment	Type here
Collaborative experience not valued as part of academic career progression	Type here
Business and academia operate to different timescales	Type here
Lack of trust or mutual understanding	Type here
Other pressures on academic time (teaching and research) limit resources for collaboration	Type here
Lack of funding	Type here
University metrics, including REF, prioritise production of high quality publications	Type here
Lack of time/resources for networking or project development	Type here
Other, please specify...	Type here

1.6. Contribution to research and impact

General questions

As part of this survey, we are keen to capture case studies where industry collaboration has had a positive impact on an academic's career. If you are aware of members within the department who could form the basis of a case study, please indicate here.

Please provide a brief outline containing the following information:

- Name of staff member
- Email address of staff member
- 1-2 line description of how industry collaboration has impacted their career

Type here

Does your department have one or more staff members for whom responsibility for industry collaboration in research constitutes a proportion of their role?

Please select the option below that best describes your department. We would welcome any additional information on other approaches your department might take to managing research collaborations with industry.

- Up to 25% FTE
- 25-50% FTE
- > 50% FTE

Any other comments:

Type here

2. Enterprise, spinouts and licences

The following questions refer to your department's activity in the areas of enterprise, spinouts and technology licensing.

Please give the approximate number of spinouts from your department in the last 5 academic years:

- 0 1-5 6-10 > 10

What are the key mechanisms/funding schemes used to enable the science/technology component of spinout companies from your department?

Please choose as many as apply to your department.

- KTN (Knowledge Transfer Network)
- LEP (Local Enterprise Partnership)
- HEIF (Higher Education Innovation Funding)
- SBRI (Small Business Research Initiative)
- Launchpad
- Biomedical Catalyst
- Cluster
- Incubator
- Other, please specify...

Type here

What are the key mechanisms/funding schemes used to enable the business component of spinout companies from your department?

Please choose as many as apply to your department.

- Venture capital
- Angel investors
- Corporate funding
- Bank
- Charity
- Crowdsourcing
-

Other, please specify...

Type here

How many licences have been secured with industry based on your department's research in the last 5 academic years?

- 0 1-5 6-10 > 10

2.1. Enterprise, spinouts and licences

The following questions refer to your department's activities surrounding enterprise training, mentorship and business awareness (technical training and employability will be captured later in the survey).

Please give the approximate number of companies involved for each audience:

	in enterprise training courses, workshops, pitching events	as mentors
Undergraduate students	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10
Postgraduate students	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10
Post-Doctoral researchers	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10
Academic staff	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10

What resources or groups does your department use to support business or commercialisation awareness training?

For each audience below, please tick all that apply.

	Industry-based alumni	Industrial Advisory Board	University experts e.g. business school	Commercial providers or consultants	Other, please specify
Undergraduates students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Type here
Postgraduate students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Type here
Post-Doctoral researchers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Type here

Does your department run any activities (e.g. training, support, mentorship etc.) that specifically address diversity issues in business/commercialisation?

Yes, please provide details

Type here

No

Does your department have one or more staff members for whom responsibility for industry collaboration in enterprise constitutes a proportion of their role?

Please select the option below that best describes your department. We would welcome any additional information on other approaches your department might have to managing enterprising collaborations with industry.

Up to 25% FTE

25-50% FTE

Over 50% FTE

Any other comments:

Type here

3. Contribution from industry to teaching, training and employability

The following questions ask about the companies your department works with to support subject-specific or laboratory-based teaching/training and the development of employability skills.

Please provide the total number of companies your department has worked with to support teaching, training and employability within the last three academic years (i.e. Sept 2012 - Sept 2015):

Please provide an approximate breakdown in numbers of these companies by size category:

SMEs (micro, small and medium sized companies with < 250 employees)

Large (> 250 employees)

Consortium (collaboration involving two or more companies - please provide the number of companies that are involved in consortium-based collaborations)

Please provide an approximate breakdown of these companies by sector:

	Number
Chemicals	<input type="text" value="Type here"/>
Energy	<input type="text" value="Type here"/>
Life sciences/pharmaceuticals	<input type="text" value="Type here"/>
Agrochemicals	<input type="text" value="Type here"/>
Water; environmental health and safety	<input type="text" value="Type here"/>
Consumer goods	<input type="text" value="Type here"/>
Other, please specify	<input type="text" value="Type here"/>

Please indicate how many of these companies are involved in supporting undergraduate and postgraduate students, postdoctoral researchers and academic staff via the mechanisms outlined below.

	Undergraduates	Postgraduates	Postdoctoral researchers	Academic staff
Development of subject-specific or laboratory-based teaching or training	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10
Delivery of subject-specific or laboratory-based teaching or training	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10
Employability skills training, CV development or careers advice	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10
Formal mentoring or coaching schemes	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10
Placements or work-based learning	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2-5 <input type="radio"/> 6-10 <input type="radio"/> >10

3.1. Contribution from industry to teaching, training and employability

The following questions refer to your department's activities surrounding teaching, training and employability.

What resources or groups does your department use to support industry involvement in teaching, training or employability?

For each group below, please tick all that apply.

	Industry-based alumni	Industrial Advisory Board	Other, please specify
Undergraduate students	<input type="checkbox"/>	<input type="checkbox"/>	Type here
Postgraduate students	<input type="checkbox"/>	<input type="checkbox"/>	Type here
Post-Doctoral researchers	<input type="checkbox"/>	<input type="checkbox"/>	Type here

Does your department have one or more staff members for whom responsibility for industry collaboration in teaching, training or employability constitutes a proportion of their role?

Please select the option below that best describes your department. We would welcome any additional information on other approaches your department might have to managing collaborations with industry for teaching, training and employability.

- Up to 25% FTE
- 25-50% FTE
- Over 50% FTE

Any other comments:

Type here

Thank you for completing the Royal Society of Chemistry's university-business engagement survey.

To send your responses, please click 'submit'. To review your responses, please use the 'back' button.

