TRADECRAFT FOR INNOVATION DIPLOMATS

A PROTOTYPE GUIDE BASED ON THE PRACTICES OF THE UK’S SCIENCE AND INNOVATION NETWORK (SIN)

> Introduction
> Exploring & Informing
> Influencing & Promoting
> Cultivating & Connecting
> Activating & Scaling
> Case Studies
ABOUT THIS GUIDE

THE GUIDE IS DESIGNED TO HELP NEW RECRUITS TO:

- understand existing SIN tradecraft in supporting collaborative innovation
- increase the impact of their efforts to support innovation by drawing on examples from within the network, and techniques from beyond
- inspire new ways of supporting collaborative innovation that will benefit the UK innovation system and economy

THIS IS A FIRST PROTOTYPE OF A LIVING RESOURCE FOR SIN.

It is designed to help the network codify and collect examples of how they work effectively, and also stimulate effective new ways to support innovation in the future.

It is designed to be read as an easy access document rather than presented to an audience. However many of the resources could form the basis of group training activities, and it presents several resources to be downloaded and used as required.
How can innovation diplomats support collaborative innovation and drive economic growth?
SIN has four over-arching goals which translate into four types of activity:

A. **Exploring & Informing**
   - Improve UK policy based on international experience and emerging opportunities and challenges.

B. **Influencing & Promoting**
   - Influence science and innovation policies of governments, industry and academia to benefit the UK.

C. **Cultivating & Connecting**
   - Stimulate strategic science & innovation collaborations to benefit the UK and deliver wider policy goals.

D. **Activating & Scaling**
   - Harness international technology partnerships and investment to grow UK innovation capability.

Efforts to support collaborative innovation span all these areas....

**Science and Innovation Network** use a range of approaches in each case:
Develop in-depth understanding of the host country innovation system (statistical data, tacit knowledge, horizon scanning etc)

Create real-time information flows back to HMG on opportunities and threats

Spot and communicate opportunities to wider stakeholders (that could help UK exploit strengths, achieve strategic policy goals, gain access to talent/facilities/funding for innovation etc)

Influence policies to improve the wider conditions for collaboration with innovative UK companies (eg IPR regime, market access)

Encourage adoption of UK models and systems for supporting innovation (eg standards)

Promote the strengths of the UK innovation system, creating demand for collaboration

Promote the UK as a destination for foreign technology-based investments

Build relationships with decision-makers (policy, funder, institution, VIP)

Design and run targeted events and workshops to spur new international partnerships

Organise missions and visits to familiarise researchers and companies with new opportunities

Match individuals/institutions/companies with appropriate international partners

Channel and facilitate enquiries about the UK innovation system to the appropriate institution/individual

Follow up connections and encourage partnership development and best practice collaboration

Develop, co-develop or identify external resources to help secure and scale promising collaborations (finance, advisory etc)

Accelerate the commercialisation of research that could benefit the UK (See case study 4)

Partner with other UK innovation support agents (UKTI, Innovate UK, RCUK, IPO etc) to help them achieve their international goals
**EXPLORING & INFORMING**

- Develop in-depth understanding of the host country innovation system (statistical data, tacit knowledge, horizon scanning etc)
- Create real-time information flows back to HMG on opportunities and threats
- Spot and communicate opportunities to wider stakeholders (that could help UK exploit strengths, achieve strategic policy goals, gain access to talent/facilities/funding for innovation etc)

**Case Study**

Eg In 2013, SIN Beijing worked closely with Nesta on a high profile research report on the Chinese innovation system and the prospects for UK-China collaboration on research and innovation.

**INFLUENCING & PROMOTING**

- Responding to government information requests
- Proactive briefings for government
- Targeted stakeholder newsletters
- Blogging and Tweeting
- Contributing to Connect communities
- Media monitoring

**CULTIVATING & CONNECTING**

**ACTIVATING & SCALING**
SIN Canada worked with the Cell Therapy Catapult and industry representatives to hold a series of workshops which proposed a set of global standards, based on British standards and procedures, for therapies derived from stem cells.

- Influence policies to improve the wider conditions for collaboration with innovative UK companies (e.g., IPR regime, market access)
- Encourage adoption of UK models and systems for supporting innovation (e.g., standards)
- Promote the strengths of the UK innovation system, creating demand for collaboration
- Promote the UK as a destination for foreign technology-based investments
- Presenting at local events and conferences on UK innovation
- Running showcases with UK partner organisations
- Organising targeted high-level visits in support of strategic objectives
- Providing political support/kudos through meetings with senior diplomats
- Capacity building workshops and materials
The SIN officer in the Czech Republic used a ministerial visit to raise the profile of UK companies and help them gain access to tendering opportunities (See case study 5)

- Build relationships with decision-makers (policy, funder, institution, VIP)
- Design and run targeted events and workshops to spur new international partnerships and to familiarise researchers and companies with new opportunities
- Leverage ministerial visits to enable innovation collaboration
- Match individuals/institutions/companies with appropriate international partners
- Channel and facilitate enquiries about the UK innovation system to the appropriate institution/individual

- Missions (inward, outward, thematic)
- Workshops,
- Receptions
- Visit programmes
SIN Colombia helped broker the UK-Columbia Innovation Prize, a challenge designed to bring UK and Colombian researchers together to co-develop technological solutions to social problems.

- Follow up connections and encourage partnership development and best practice collaboration
- Develop, co-develop or identify external resources to help secure and scale promising collaborations (finance, advisory etc)
- Accelerate the commercialisation of research that could benefit the UK
- Partner with other UK innovation support agents (UKTI, Innovate UK, RCUK, IPO etc) to help them achieve their international goals

<table>
<thead>
<tr>
<th>Exploring &amp; Informing</th>
<th>Influencing &amp; Promoting</th>
<th>Cultivating &amp; Connecting</th>
<th>Activating &amp; Scaling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify local partner organisations to run collaborative R&amp;D funds with UK partner organisations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contracting UK innovation consultancies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collecting and sharing real time funding opportunities (targeted and broadcast)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The following slides provide some practical guidance and inspiration for improving impact on innovation.

Innovation diplomats should seek to adapt these examples to their unique requirements, and to codify and share their own approaches.
WHILE THERE IS NO PRECISE FORMULA FOR WHAT CONSTITUTES A HIGH IMPACT OPPORTUNITY, THERE ARE WAYS TO FOCUS IN ON UK PRIORITIES:

- Would it improve UK innovation capabilities?
- Does it match with Government’s current priorities?
- Is there a clear set of champions on both sides with access to funding?
- Is there demand for this from the relevant stakeholders in the UK?
- Will it lead to jobs and growth in the UK?
- Have you considered whether wider conditions are conducive/how to manage risks?
How will the UK economy and innovation system benefit from the collaboration?

**FOR EXAMPLE:**

- Will innovative UK companies gain access to specialist facilities, rare or complementary skills, important new markets, or new financing for innovation?
- Will it create jobs in the UK or drive investment into the UK innovation system?
- Will it improve the UK’s competitiveness in a field, or help UK stakeholders solve social or technological problems?

Proving this potential benefit can be challenging. One commonly used approach is a “Theory of Change.”

This is a planning process which acts as a roadmap of activities towards achieving a particular goal. It can help organisations plan how a range of activities complement each other. It is also often used to articulate interim goals so progress towards objectives can be tracked.

The following slide is a template for a theory of change exercise.
TO COMPLETE A **THEORY OF CHANGE** EXERCISE, START WITH THE PROBLEM YOU ARE TRYING TO SOLVE AND MAP OUT YOUR STEPS TOWARDS SOLVING IT. TO SPOT RISKS AND POTENTIALLY USEFUL CONNECTIONS, IT'S IMPORTANT TO MAP OUT YOUR ASSUMPTIONS AT EACH STAGE…

**THEORY OF CHANGE**

- What is the problem you are trying to solve?
- Who is your key audience?
- What is your entry point to reaching your audience?
- What steps are needed to bring about change?
- What is the measurable effect of your work?
- What are the wider benefits of your work?
- What is the long-term change you see as your goal?

**Key assumptions**

**Download a blank template**

**WORKSHEET COURTESY OF DEVELOPMENT IMPACT AND YOU HTTP://DIYTOOLKIT.ORG/**
### VISION
- What is the issue at stake?
- What are our interests and how does this fit with our values?
- How does this fit with HMG and FCO priorities?
- What is the long term aim?
- What are the long, medium and short term objectives?

### ANALYSIS
- What are the facts and drivers?
- Who are the players/audiences, what do they think, who influences them?
- What do Posts and FCO experts think?
- What do other (including Whitehall and non government) experts think?
- Has this happened before?
- Have I challenged initial assumptions?

### SCENARIOS
- What do we want to happen?
- What are the possible scenarios and what is their likelihood?
- Have I drawn on all available expertise?
- Have I challenged initial assumptions?
- What is our favoured scenario?

### DECISIONS
- In what different ways could we achieve our preferred scenario?
- Have I put genuine options to Ministers?
- Have I incorporated different views?
- Have I presented my advice correctly?
- Have I considered the communications and Parliamentary implications?

### PLANNING & DOING
- What are the tools and levers at our disposal?
- Who should do what, to whom and by when?
- Who is accountable and who has day-to-day responsibility?
- Is everyone aware of what they need to do…and doing it?

### EVALUATION
- Is the policy working?
- Have we measured what we are achieving?
- Do we need to adjust our approach?
- Have we shared any lessons learned?

---

**Look at Guide 2: introduction to the UK innovation system for leads on organisations in the UK to partner with on making the case with research, or providing expert advice.**

Improving the policy framework may be about **urgently** removing barriers (eg US lobbying against Chinese national procurement catalogues that inhibited opportunities for American firms) or it may be about **longer term** capacity building (eg SIN India efforts to build the quality of IP protection through customising the Lambert Toolkit to the Indian context.)
UKTI’s ‘INNOVATION IS GREAT’ campaign has produced a range of good promotional resources on UK innovation strengths to be used in presentations, but there are many more spread throughout the network.

Guide to Innovation in the UK by the Brazilian SIN team

The commercial benefits of innovating in the UK
Who are your main stakeholders? Are you targeting new groups?

If you want to access new groups, you need to know what motivates them.

Guide 1: Introduction to innovation policy and collaboration has details on what motivates firms to collaborate, and the arrangements they use to partner on innovation.
You might like to use a grid like this one to map out the potential collaborations in a given area:
These are just some examples of the forms innovation collaborations might take: Guide 1 has further guidance.
Missions and workshops are used frequently by SIN to cultivate and connect researchers and companies. The following tool is based on a Business Model Canvass which is used by companies to help them strategically about their activities. It has been designed to help SIN officers think about how to increase the impact of their activities on innovation from identifying a mission all the way through to monitoring and evaluation. It draws on SIN experience around the world, including the case studies at the end of this guide.

You can download the template on the Nesta website.
## 1. Have you identified a high impact opportunity?
Eg. Have you scoped UK and local strengths? Do you know how these fit with UK policy priorities? Have you tested demand for this support with UK and local stakeholders (institutions, clusters, geographies)?

## 2. What is your desired outcome and what is the best approach to achieve this?
Eg. Does it complement the work of other government partners? How will you fund the activity? How will you ensure it has impact? In what time frame do you expect this to happen?

## 3. How could partnering maximise your impact?
Eg. Which local and UK based organisations can help? How can you work with them effectively? Do you understand their objectives?

## 4. How will you recruit the right participants?
Eg. Which organisations will help you access the right people?

## 5. How will you design events to maximise the chances of developing productive new relationships?
Eg. When can you hold your event to achieve most impact? Are there external ‘hooks’? What format should the event take? Is it a one off or a series?

## 6. How will you grow your impact through complementary activities?
Eg. Does this activity require broader support for success? (Political support for collaborations? Policy changes to enable links? Capacity building? Publicity campaigns? Follow on funding to sustain linkages and scale impacts?) How does this event fit into your wider scheme of work?

## 7. How will you monitor and measure the impact of your initiative?
Eg. What data will you gather? How will you follow up, monitor and communicate outcomes? How will you know what role SIN played in the achievement?
ORGANISING EVENTS TO SPUR COLLABORATION CAN BE TIME CONSUMING, WITH UNCLEAR EXPECTATIONS OF OUTCOMES. THERE ARE A RANGE OF TECHNIQUES TO MAXIMISE CHANCES THAT PRODUCTIVE NEW CONNECTIONS WILL BE FORGED.

**SIN TIPS FOR GOOD PRACTICE BEFORE THE EVENT**

- Collect and distribute company and researcher profiles and presentations prior to the event. This allows companies to do background research into counterparts and their technologies, and possibly to contact them in advance of the event.

- Arrange a group call to brief UK participants on how to prepare for the event and what to expect: discuss local cultural practices in relation to networking and collaboration.

**SIN TIPS FOR GOOD PRACTICE ON THE DAY**

- Keep presentations as short as possible: event participants regularly want more time for networking but rarely complain that they didn’t hear enough presentations.

- Build sufficient time into the schedule for participants to arrange follow up meetings with contacts made during the mission.

- Ensure qualified interpreters are available during networking sessions as well as presentations (if relevant).

**IDEAS FOR INSPIRATION**

There are many techniques which you can use to get people talking at events. In the following slides we present four example techniques/exercises to help forge collaborations that are commonly used by innovation brokers:

- World Cafe
- Give | Get
- 3 minute -JV
- Pecha Kucha
The room should be arranged in 4 tables/zones with equal sized groups and the maximum possible diversity of perspectives/experience within the groups should be ensured. Each table has one chairperson (who remains at the same table throughout) and is asked to focus on a different question related to the workshop theme. Each group then has 4 consecutive discussions (timed and typically 20 minutes each) with groups rotating after each round. Each table builds on the outputs of the previous group as follows:

**ROUND 1 - BRAINSTORM IDEAS/PROPOSITIONS** - To begin with, delegates are invited to work on their own and in silence by capturing their responses to the question post-it notes. After 5 minutes they then take it in turns to share their responses.

**ROUND 2 - BUILD & CLUSTER** - The chairperson begins by summarising the main points emerging from Round 1. They invite the group to build on the contributions of the previous team, in particular focusing on adding any points that didn't come out of the previous round. The group are then asked to cluster the responses into some emerging themes (session target is 5-10 big themes).

**ROUND 3 - BUILD & PRIORITISE** - The chairperson begins by summarising the main points emerging from Round 1 and 2. They invite the group to build on the contributions of the previous team, in particular focusing on adding any points that didn't come out of the previous rounds. The group are then asked to prioritise the emerging.

**ROUND 4 - SENSE-CHECK & SELECT** - The chairperson begins again by summarising the main points emerging from Rounds 1, 2 and 3. The group are invited to build on the contributions of the previous team, in particular focusing on adding any points that didn't come out of the previous rounds. The group are asked to sense check the rationale and thinking of the previous three groups and, if it hasn't already become apparent by this stage, select the top three propositions to work on at the next stage.
When engaging a group for the first time around a theme it’s sometimes interesting to ask them what they are looking to get from the session or the network, and also what they might be able to give. Prepare a template for people to complete individually at the event for just 5 minutes. Encourage people to start with at least 3 Get’s and then at least 3 Give’s (i.e. be selfish first and then altruistic). Ask everybody to capture (on a prepared template) their name and contact details together with the following information:

**Give** – What might you be able to offer other delegates in terms of time, money, skills, resources, knowledge, data, challenges etc?

**Get** – What would you be looking to get from other delegates potentially in terms of time, money, skills, resources, knowledge, data, solutions etc?

When everyone has captured this information invite them to discuss their Give’s and Get’s with their neighbour for 5 minutes, and if there is time, with their other neighbour.

Their Give/Get cards can be collected and put up in a public space for people to browse over coffee/lunch break and it’s amazing how often people photograph the cards that interest them and make new connections as a result.

If there is time, as a moderator/facilitator you could call out some of the most interesting to the whole room (after coffee or lunch) along the lines of “Chris has a challenge with data visualization … can anybody else help him with that?” or “Christina is offering specialist equipment at her university that does xyz… would anybody be interested in taking her up on that offer?” etc.
EXERCISE: 3 MINUTE ‘JOINT-VENTURE’

Participants are asked to get into pairs – preferably someone they don’t know. In their pairs they have 3 minutes to come up with a business idea and to give it a name. To do this, they need to find out about each other – what they do, what they could do together. After each round do a quick debrief. Who came up with something in 3 minutes? Who just had a nice chat but didn’t come up with anything? Invite a few pairs to feedback what they came up with.

Typically there would be at least 2 rounds of this exercise – delegates are asked to switch partner for each round. The Joint Ventures can be noted on ‘JV cards’. Once completed, the cards should be stuck somewhere visible.

The outcome is that it energises the group and sparks new connections and delegates start to think about how they might collaborate more together.
This is a presentation format originating in Japan, and is actually the Japanese word for ‘Chit Chat’.

For larger events of 80-100+ people it works really well to invite **up to 10 people** to speak on a theme for **5 minutes each max** (timed with a clock visible to both the speaker and the audience and audience encouraged to applaud when the time is up). It is good to have a **mix of speakers** e.g. half from large companies and half from smaller companies or universities and all speakers are asked to finish their talk with an ‘Ask’, namely an offer, a challenge, an opportunity or a question for the audience.

This helps drive engagement and networking later. There is no Q&A after each speaker but the host or facilitator perhaps comments very briefly on something interesting the previous speaker has just said, encourage other delegates to go and talk to the speaker in the networking afterwards, and then quickly introduce the next speaker. After the talks there follows an informal networking event.
WHICHEVER EVENT FORMAT YOU CHOOSE, THE MOST IMPORTANT SUCCESS FACTOR IS LIKELY TO BE THE PARTICIPANTS. NOT ONLY ARE THEY WORKING IN THE RIGHT AREA, BUT HAVE THEY GOT MOTIVE, MEANS AND OPPORTUNITY?

THE LONGLIST

- **Build a database** – create a list of potential participants based on data from multiple sources that are indicative of innovation (REF rankings, industry awards, Innovate UK/Research Councils funding, investor backing, news coverage. Consider using other databases and services relating to specific fields or challenges like 100% Open radar service, inno360, Ninesigma, Yet2, Innocentive etc
- **Ask your networks for recommendations** – which are the UK hubs for this type of expertise? Eg can KTNs or industry bodies help?

THE SHORTLIST

- **Seek low-hanging fruit** – Are there existing demands for support in this space that you could help unlock through removing barriers or limited support?
- **Identify an ideal profile** – In universities eminent professors might be too busy, in firms, junior staff might not have the authority to form collaborative agreements, the CEO might not have the required technical knowledge to have a productive discussion. Who do you need in the room?
- **Ensure capacity to follow up** – Have they shown demand for collaboration? Have they got the time and resources to pursue this opportunity?

THE INCENTIVES

- Do participants know what outcomes to expect?
- Will the event format put participants off (eg too long away from the day job)?
- Can you guarantee productive links by quality controlling the local participation and/or by matching activities prior to the mission?
- Are there impact multipliers? Eg mission parallel to a local trade show?
- Can you offer ‘sweeteners’ like star speakers, high level political meetings or media coverage?
Effective partnerships are built on an understanding of the goals, strengths and methods of a potential partner. Failing to understand these areas is often a source of tension between organisations. After identifying an organisation you would like to work with, try to understand how the organisation works by asking yourself the following questions:

- **Strengths and capabilities:** What can you give to and get from each other to advance objectives?
- **Targets and goals:** Do you understand each others’ goals and approaches to judging success?
- **Methods and processes:** Are operational approaches compatible? Could they align better?
- **Risks and challenges:** Where do potential danger areas exist? Can you identify these in advance and take steps to avoid them?

The **case studies** at the end of this guide show a range of benefits that SIN can get from working with partners:

Where possible, SIN should think about how to build long term collaborations with partners, by considering what it can offer to partner organisations as well as what it can receive from them.

Look at **Guide 2** for a list of the organisations that SIN regularly works with and how it can build long term partnerships with them.
COLLABORATION WITH UKTI MAY BE AN IMPORTANT ROUTE TO SCALING INNOVATION COLLABORATIONS. SUCCESSFUL WAYS OF WORKING ARE NOT TRANSACTIONAL ‘HAND-OVERS’ BUT LONG TERM EFFORTS TO BUILD RELATIONSHIPS AND UNDERSTANDING COMPLEMENTARITIES.

GOALS & TARGETS:

- Helping UK business export & securing inward investment.
- UKTI is driven by targets: organisational targets include achieving £1 trillion of trade value and £1.5 trillion of investment stock value by 2020. In the nearer term it has the following targets for 2014/15: 50,000 businesses assisted, 750 inward investments, £10bn of High Value opportunities secured for UK businesses. UKTI posts also have individual targets.

STRENGTHS & CAPABILITIES:

- 1200 overseas staff based in embassies and over 1000 UK based staff (compared to around 90 SIN staff)
- Diverse relationships with SIN and prosperity officers
- The new UKTI innovation gateway, launched in 2014, is likely to work closely with SIN
- ‘Hotspots’ tool developed to help assess strategic value of markets – potential value for SIN too.

METHODS & PROCESSES:

- Work to a strict definition of ‘high value opportunity’ that may vary from that of SIN
- Core business of strategic relationship management means firm contacts are valuable
- Provides services to individual firms as well as supporting industrial groups

HOW TO ENSURE WIN-WIN SCENARIOS?

See case studies at the back of this guide for examples of how UKTI and SIN can work effectively together.
Can you design your activity as part of a campaign rather than a single event? (Case study 6)

Can you provide further political support to unblock barriers to opportunities for UK organisations (Case studies 1 and 5)

Can you organise follow up workshops with the same participants to further develop relationships – case study 4

Can you identify sources of funding for international collaborations on development focused research (Case study 4)

Can you design your activity as part of a campaign rather than a single event? (Case study 6)
CONNECTIONS MADE THROUGH SIN OFTEN REQUIRE **EXTERNAL FUNDING FOR COLLABORATION** TO TAKE PLACE. MONITORING SOURCES OF FUNDING AND INFORMING EVENT PARTICIPANTS OF OPPORTUNITIES CAN MULTIPLY THE IMPACT OF ACTIVITIES

### Three tips on identifying additional sources of funding for international collaboration:

#### SCOPE
Find out about sources of funding for a specific sector: talk to RCUK, the KTNs, BIS, Innovate UK UKTI, trade associations, the Catapults and their counterparts in the host country.

*Eg* Look at Horizon 2020 and Innovate UK, third sector organisations such as the Wellcome Trust.

#### MONITOR
To keep informed of new funding calls: follow funders on Twitter, subscribe to industry mailing lists, use RSS feeds to receive email notifications relating to specific terms, e.g Brazil + international funding.

*Eg* SIN Canada have used novel automated methods to monitor funding calls.

#### INFORM
Create a regular funding newsletter and send out to past event participants. Use social media, blogs and the _Connect_ platform to inform others about funding opportunities.

*Eg* SIN India produces a well read newsletter on funding opportunities for UK-India collaborations.
This is easier said than done, given:

- Inherent risks and uncertainties of innovation
- Challenges of measuring impact of brokerage and intermediary activities on innovation
- Difficulty of judging the impact of individual interventions on economic growth

However, there are a range of ways to understand, monitor and measure the impact of an intervention/set of interventions.

In the following slides we outline two useful guides to measuring the impact of innovation support programmes:

A) Standards of evidence

B) Innovation indicators
There is a rich literature on how to demonstrate the impact of innovation support programmes. A commonly-used framework sets out ‘standards of evidence’ from 1-5.

Different standards require different data capture and evaluation techniques. These might range from narrative accounts to randomised control trials.

The first step is a clear set of goals, and a rationale for how your chosen activities will achieve them.

1. You can describe what you do and why it matters, logically, coherently and convincingly

2. You capture data that shows positive change, but you cannot confirm that your intervention caused the change

3. You can demonstrate causality with reference to a control group or comparison group

4. You have one or more independent evaluations that confirms your conclusions and potentially replicates your results

5. You have manuals, systems and procedures to support and ensure faithful replication of your innovation.
There are a wealth of innovation indicators:

- inputs like R&D spend, intangible investments
- outputs like publications, IP (patents, copyrights, design rights and trademarks), new products
- technometric indicators like processing speed or performance
- aggregated scoreboards by institutions like the OECD, EU and WEF

However, metrics on the innovation process: collaborations, alliances, networks, management etc are much harder to track, even if these are very important to judging the overall impact of innovation.

How could SIN judge the impact of its activities on innovation and economic growth? How would the following table look for you?

<table>
<thead>
<tr>
<th>PHASE</th>
<th>EXPLORING &amp; INFORMING</th>
<th>INFLUENCING &amp; PROMOTING</th>
<th>CULTIVATING &amp; CONNECTING</th>
<th>ACTIVATING &amp; SCALING</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUCCESS INDICATOR</td>
<td>Eg high impact</td>
<td>Eg public attitudes</td>
<td>eg new relationships</td>
<td>Eg funds created, finance raised,</td>
</tr>
<tr>
<td></td>
<td>opportunities</td>
<td>towards UK innovation</td>
<td>formed, MOUs/contracts</td>
<td>jobs created, market penetration</td>
</tr>
<tr>
<td></td>
<td>identified and</td>
<td>capabilities or</td>
<td>signed (value?), added</td>
<td></td>
</tr>
<tr>
<td></td>
<td>validated</td>
<td>attitudes of key</td>
<td>value of intermediary</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>target stakeholders</td>
<td>support</td>
<td></td>
</tr>
</tbody>
</table>

| METHOD OF CAPTURE      | Eg expert panel       | Eg Surveys               | Eg email follow up, event| Eg email follow up, media monitoring, |
|                        | assessment            |                         | follow up, survey to     | webscraping                         |
|                        |                       |                         | assess ‘net promoter    |                                    |
|                        |                       |                         | score,’ testimonials,    |                                    |
|                        |                       |                         | making support           |                                    |
|                        |                       |                         | conditional on regular   |                                    |
|                        |                       |                         | feedback, etc            |                                    |

| FURTHER IDEAS          |                       | Weighting for importance| Qualitative judgements   |
|                        |                       |                         | of collaboration value   |
|                        |                       |                         | for UK?                 |
Sometimes companies can be reluctant even to explore potential collaboration with other organisations. This is often because they fear the loss or contamination of their own IP for no gain if their explorations don’t result in a successful new collaboration.

An **Innovation Airlock** can help. By engaging a **trusted third-party agent** such as SIN to act as a mediator, a company can have exploratory discussions with possible collaborators without fear of compromise. The trusted agent helps the company (and the potential collaborators) by providing:

- **Insulation** to limit IP flow in both directions. Any confidential information is received only by the agent, who has no commercial interest in the IP. Guided by criteria agreed with the company, the agent can then act as a proxy evaluator and decision maker without revealing the IP.

- **Simplicity** to allow the company to engage in just one conversation with the agent, whilst the agent handles the burden of all the many possible collaboration discussions.

- **Coaching** to help the company present its opportunity to potential collaborators most clearly and effectively, and to help potential collaborators sell their “offer” in a compelling way.

- **Facilitation** to ensure that the explorations proceed in an timely, orderly way, and with the maximum chance of success.

The airlock is a **temporary** arrangement. The ideal outcome is that the trusted agent can withdraw, leaving the company in one more new collaborations with other parties. However, if that’s not possible, the company and any potential collaborators can withdraw having not revealed their IP to anyone other than the agent under NDA. In this way, the airlock keeps everyone clean whilst collaboration discussions take place.
Here are some questions you should answer if you want to operate an Airlock successfully for a company:

- Have you clearly understood the needs that give rise to the company’s desire to collaborate? Can you compellingly represent them (including any technical factors) to other parties?

- Have you clearly understood the concerns that give rise to the desire to use an airlock? Have you agreed what information you can and cannot share with potential collaboration partners? Have you entered into appropriate NDAs with all parties?

- Have you agreed with the company any decision criteria that you will use on their behalf to decide whether any particular collaboration with a possible partner has strong potential? Has the company granted you ability to act in that way? Do you know what decisions will need to be referred back to them?

- Have you or the company identified a set or a source of potential collaboration partners to engage through an Airlock? Will the potential collaboration partners be prepared for you to act on their behalf with everyone’s best interests in mind? Will they see you as representing the company’s position?

- Have you defined a realistic process and timetable over which the airlock will run? Has that been communicated and agreed by all parties?

- Have you agreed at what point the airlock will end, what the desirable outcome is, and who and how any unsuccessful collaboration partners will be informed of any decisions?
CASE STUDIES

> Click here to download a case study template
## Sin Innovation Support Case Study Resources

### WHAT ARE THEY?

Drawn from examples across the network, the following 10 case studies demonstrate a range of approaches to supporting international innovation linkages – from collaborative R&D funds, to improving access to foreign funding or markets, or influencing the wider conditions for innovation by UK firms.

### HOW WERE THEY CHOSEN?

The cases are recognised as good practice by SIN and BIS, but are not an exhaustive index of possible approaches. A long list was taken from annual reports, which was then shortlisted by a panel of SIN officers, BIS officials and Nesta. The case study content was developed through interviews with the lead staff member.

### WHY THIS APPROACH?

Although the annual report lists successful achievements, it doesn't provide much detail at all on how those successes were brought about. This approach breaks down those examples to share the process and activities behind those successes, and the SIN officers' views on what made it work.

### HOW TO USE THESE CASE STUDIES

- Each case study is broken down into a series of steps: exploring & informing, cultivating & connecting and activating & scaling. Where it was an explicit goal, there is also a section on influencing and promoting, although these activities usually sit alongside all aspects of SIN’s diplomatic work.
- Use these case studies when planning a new work stream or event: they provide tips on how to identify an opportunity, how to organise an event and different ways to grow the impact of an activity.
- The success factors section of each case study highlights the key features that made this activity work.
- Each case tells you the number of SIN officers at the post. Different posts may have resources for different scales of activity.
- The contact details of the relevant SIN officer are provided for you to follow up if necessary.
- A blank template is provided for you to share the processes and activities behind your own successes, key learning points on what to do, or what to avoid with other SIN officers.
**CASE STUDY 1: HELPING SPIN-OUTS ACCESS FOREIGN MARKETS**

**SIN POST:** São Paulo, Brazil  
**THEME:** Tropical medicine  
**NO. OF SIN OFFICERS AT POST:** 3

**EXPLORING AND INFORMING**
- SIN decided to set a goal of connecting innovative UK SMEs to opportunities in Brazil.  
- SIN talked to UK and Brazilian organisations and identified UK strengths and Brazilian demand in tropical medicine.  
- To identify event participants, SIN and UKTI funded a joint post to create a database of science parks, based on universities with high RAE scores in tropical medicine.  
- They sent flyers to these science parks advertising a mission.

**CULTIVATING AND CONNECTING**
- SIN organised a 5 day mission, which included visits to companies, science parks and meetings with local funders (e.g. the Brazilian development bank).  
- The schedule included ample time for participants to network.

**ACTIVATING AND SCALING**
- After the initial mission in 2010, Oxitec, a University of Oxford spin out producing genetically modified mosquito eggs to control dengue fever, decided to enter the Brazilian market.  
- Oxitec was required to conduct in country research to test and adapt its product to local conditions.  
- This required political support from SIN – it was the first time the Brazilian government allowed genetically modified insect eggs into the country.  
- To do this SIN helped raise the profile of Oxitec with the Brazilian government by inviting it on a ministerial visit. SIN also sent a reference letter to a government agency when the company applied for an import licence.  
- 4 years after the initial mission, the company is now looking for a local partner to manufacture its product.

**SUCCESS FACTORS AND LESSONS LEARNT**
- **Identifying excellence** – SIN Brazil took a novel and proactive approach to identifying participants  
- **Political support** – SIN support removed barriers to collaboration  
- **Long term engagement** – The SIN team followed up with Oxitec for 3 years after the initial mission  
- **Strong UKTI-SIN relationship** – UKTI support was crucial in identifying commercial contacts
**Case Study 2: Building Bridges Between Startup Communities**

**Sin Post:** Netherlands

**Theme:** Connecting digital start-ups

**No. of Sin Officers at Post:** 1

### Exploring and Informing
- SIN Berlin delivered a successful bilateral event to connect digital start-ups, working with the Creative Industries KTN.
- Knowing that Amsterdam has an equally vibrant and innovative start-up scene, the SIN officer contacted the KTN to explore the scope for a similar event.
- SIN worked with the KTN to bring 2 Dutch partners on board.

### Cultivating and Connecting
- SIN's main role was liaising between the creative industries KTN and the 2 Dutch organisations, who recruited participants and organised the event.
- The event format included plenty of time for networking.
- A session with a well known industry speaker helped attract more UK and local participants.
- The focus of the event was learning, sharing experiences and finding partners, not just winning business.

### Activating and Scaling
- The follow up to the event was handled by the KTN and the Dutch organisations. This is usually the case when a partner organises an event for SIN.
- The event created a link between Dutch and UK creative industry bodies, who will go on to cooperate in other areas in the future.
- Shortly after the event a UK start-up secured a €35,000 contract in the Netherlands.

### Success Factors and Lessons Learnt

**Working with partners** – SIN used member organisations to recruit business participants and organise event logistics, greatly increasing the impact a ‘singleton’ post can have.

**Replicating good practice from elsewhere in the network** - knowing what has worked at other SIN posts helped generate the idea for the mission and also helped SIN NL deliver the event on a tight timeline.
SIN POST: Taiwan

THEME: Internet of things

SUCCESS FACTORS AND LESSONS LEARNED

**Combining events** - Running events in tandem with UKTI and local events made it more attractive for companies to attend. However, they learnt that they need to plan logistics early when organising missions around large local events, as they only have a limited travel budget.

**Recruiting local participants** – SIN found that getting comprehensive profiles of UK delegates allows you to better promote the event to local companies and ensure greater participation.

---

**EXPLORING AND INFORMING**

- SIN officers set out to identify areas of UK strengths and Taiwanese demand, settling on communications hardware and software design. After talking to local and UK experts in these fields they found strong demand for internet of things technologies for city management.
- SIN decided to organise a mission to connect applied researchers, but after talks with UKTI found an opportunity to also involve businesses.

**CULTIVATING AND CONNECTING**

- SIN combined their event with a UKTI mission and a local trade promotion event. This ensured that UK participants would get to meet a large number of local companies.
- SIN had no trouble finding academic participants for the mission but needed help recruiting UK SMEs.
- They contacted the ICT KTN, who sent a flyer out to its network.
- 20 SMEs applied and while SIN took responsibility for choosing participants, the KTN used its industry expertise to help with vetting.

**ACTIVATING AND SCALING**

- This mission helped position the UK as an important source of knowledge on internet of things technologies and paved the way for further SIN work in this area.
- One SME which had never been to Taiwan before was invited back to the country after the mission and won a technology licensing deal from a Taiwanese company, worth over £100k.
### CASE STUDY 4: SPOTTING AND PURSUING OPPORTUNITIES TO ACCELERATE THE COMMERCIALISATION OF APPLIED RESEARCH

**SIN POST:** Bangalore, India  
**THEME:** Affordable healthcare  
**NO. OF SIN OFFICERS AT POST:** 3

#### EXPLORING AND INFORMING
- In 2011, SIN Bangalore identified affordable health care as a mutual priority for the UK and India, based on discussions with UK and local experts, and an understanding of each country's priorities.
- SIN decided to use GPF money to run a lecture series in Bangalore with speakers invited from the UK and contacted a range of researchers in the UK about the opportunity.

#### CULTIVATING AND CONNECTING
- At the SIN workshop the Institute of Biomedical Engineering (IBME) at the University of Oxford and the Indian Institute of Science discussed the possibility of future collaboration and agreed to follow up after the event.

#### ACTIVATING AND SCALING
- SIN used GPF funding to take a delegation from the Indian Institute of Science to Oxford for a workshop to cement the relationship.
- SIN found a Wellcome Trust funding call on affordable healthcare in India and notified the partners about it.
- The partners were successful in applying for a £7m grant to develop an prosthetic hand.
- The UK gained access to Indian IP; India benefited from UK engineering expertise and the resultant affordable healthcare product will contribute to the UK's commitment to addressing global challenges.

### SUCCESS FACTORS AND LESSONS LEARNT

**Activating partnerships** – By organising follow up activities and identifying sources of funding, SIN helped move the collaboration forward.

**Understanding collaboration timescales** – It took 2.5 years from the initial lecture to the Wellcome award. Alongside planning new events and work streams, SIN officers made a time commitment to follow up with the participants of this workshop over the long term.
The Extreme Light Infrastructure project (ELI) is a large, pan-European research project which aims to build lasers with a huge energy density. It is based across several sites, including one in the Czech Republic.

Recognising the UK’s strengths in laser technology, SIN contacted the UK’s Science & Technology Facilities Council in 2009 about opportunities for UK researchers and companies to work with ELI. This was followed by a visit by the Prime Minister.

To place UK companies in a good position to apply for ELI grants, the embassy invited ELI representatives to embassy events on several occasions, to make them feel ‘part of the family’. A joint visit by UK and Czech Prime Ministers to the ELI facility also helped cement the relationship.

After the mission, UK companies went on to apply for ELI tenders and won a total of UK £15 million in commercial and research contracts.

**SUCCESS FACTORS AND LESSONS LEARNT**

**Working with UKTI** – SIN identified the opportunity and focused on introducing the project to researchers while UKTI took the lead in recruiting UK companies for a commercial mission.

**Understanding of UK strengths** in laser technology helped SIN identify a commercial opportunity

**Strong political support** helped convert connections made at SIN events into tangible collaborations
### SUCCESS FACTORS AND LESSONS LEARNT

- **Timing:** Events were timed to coincide with major academic and industry conferences to reach a wide audience.
- **Partnering:** Working with Innovate UK, the BIA (industry association) and UKTI ensured a strong focus on innovation.
- **Connecting networks:** SIN arranged meetings with established US networks, rather than individual labs, to maximise opportunities for linking.
In the course of its regular conversations with local contacts, SIN identified an opportunity to promote the UK’s strengths as a destination for clinical trials: Research groups in California were ready to move to clinical trials after 10 years of strong funding.

The team confirmed that the time was right for a translational research and commercialisation focussed programme of work.

SIN organised a road show of UK experts, including businesses, academics and the Cell Therapy Catapult, which reached over 100 local academic and industry researchers through meetings, a breakfast seminar and a session at the annual meeting of the California regen med funding agency.

SIN worked with UKTI to choose a mix of UK participants covering regen med and clinical trials, to provide a full range of advice to the Californian audience.

SIN used its strong network of connections in regen med, developed over several years, to identify local participants.

This activity built on several years of events and contact building in this field.

It helped the newly established Cell Therapy Catapult forge links with translational research centres, companies and investors in California.

As a direct result of the mission, several companies and researchers chose to undertake clinical trials in the UK.

**SUCCESS FACTORS AND LESSONS LEARNT**

- **Cultivating contacts** - SIN built on contacts developed over years to identify an opportunity for the UK and promote it to the right people
- **Working with UKTI** - This helped SIN identify industry participants
- **Focused activity** - The activity focused narrowly on regen med, rather than all potential clinical trial users, so select delegates could provide information tailored specifically to this community.
CASE STUDY 8: BILATERAL PARTNERING TO LOBBY THE EUROPEAN COMMISSION ON INNOVATION POLICY

**SIN POST:** Paris, France  
**THEME:** Innovation financing  
**NO. OF SIN OFFICERS AT POST:** 3

### EXPLORING AND INFORMING
- SIN France regularly feeds intelligence back to the UK government and responds for requests for input into government reports.

### INFLUENCING AND PROMOTING
- The UK Treasury saw an opportunity to promote the UK public procurement model and the Small Business Research Initiative (SBRI) in France and also wanted to identify a partner government to lobby the EU on innovation financing, with the goal of making the EU environment more supportive of innovation. It asked SIN to help it organise a bilateral meeting with the French Industry Ministry.

### CULTIVATING AND CONNECTING
- In this instance, the meeting participants were hand picked by government, but SIN is usually responsible for identifying participants.  
- SIN fed into briefings in preparation for the meeting.  
- SIN helped develop links between the BIS board and DG Research and innovation.

### ACTIVATING AND SCALING
- After the event, BIS and their French counterpart drafted a letter to the Commission. SIN liaised with both departments throughout the process.  
- The letter supported a paper on innovation financing, which led to new Commission programmes on venture capital and innovation procurement.  
- This activity established a new relationship between SIN and the French Industry Ministry, which they will use for future work.

### SUCCESS FACTORS AND LESSONS LEARNT
- **Intermediating** - SIN occupies a unique position for intermediating collaboration - SIN turned an interest by two governments into a concrete activity by facilitating the event.  
- **Coalition building** - SIN can play an important role in building international alliances to influence supranational and global policies that may be more effective than the UK acting alone.
Building on success supporting RCUK to grow bilateral research collaborations, the SIN team wanted to grow the amount of industrial R&D collaboration between UK & India for mutual benefit. They positioned the UK as a good partner for a new PPP funding instrument set up by the Indian govt to support international collaborative R&D, called GITA. Given alignment with UK priorities and strong political support, they secured Innovate UK’s interest in developing the opportunity – despite lack of precedent for this kind of activity outside US/Europe.

Over at least a two year time frame, SIN have been supporting two distinct types of collaborative relationship:
- Political and official - from the agreement to joint funding signed by science ministers at a bilateral council in 2012, through to the negotiations between Innovate UK and the Indian government on the design of the joint instrument.
- Commercial - Collaborating with the KTNS and Innovate UK on several joint workshops (eg medical devices, smart power and digital health) to refine focus of calls and build partnerships to access funding.

A £5m Innovate UK-GITA matched fund for collaborative R&D between UK and India was launched in Autumn 2013, with first round calls closing April 2014.

SIN continues to partner with innovation consultancies such as AcceleratorIndia on commercial events both to draw on appropriate company contacts, but also to use methodologies like their ‘#Riffstream’ approach to build productive collaborations between firms rather than relying on chance conversations.

Success Factors and Lessons Learnt
- Even with strong political backing, this was an intensive and long term operation.
- Draw on existing collaborative funding mechanisms within the host country
- Multiply impact through directing a range of activities towards a collective, ambitious goal.
As well as actively scoping opportunities for new activities, SIN is occasionally asked to facilitate events on behalf of UK partner institutions. Innovate UK negotiated a joint funding call on sustainable manufacturing with the Chinese Ministry of Science and Technology and decided they needed a mission to help create more links between UK and Chinese companies who could then go on to jointly apply for funding. Innovate UK asked the Chemistry Innovation KTN to run an event for them and the KTN in turn delegated in country organisation to SIN.

- After discussions with SIN, the KTN decided to run a mission to 3 cities in China.
- The participants included 5 academics and 13 businesses.
- SIN facilitated the mission, coordinating the efforts of a diverse group of stakeholders in the UK and China.

The EPSRC and MoST launched a £3m funding call for joint industrial research projects between UK and Chinese companies.

The event itself helped raise the profile of the UK with 3 local governments across China. SIN will be able to build on these relationship in its future work.

Local contacts are key to organising effective partnering events: the attendance of companies at the individual events was best in Guangzhou and Shanghai, the two cities that SIN is based in. SIN could consider developing local partnerships in cities beyond where they are based.

The participants felt that there wasn’t enough time to arrange follow up meetings with new contacts after the events. This could due to the 3 city format of the mission.