***Ingenious***

**Project planning template**

**Project details**

Principal applicant name:

 Organisation:

 Project title:

 Grant reference: ING

 Date:

**1. Purpose of this document**

The aim of this document is to help you plan your *Ingenious* project and record the decisions you make. The plans you set out in this document should be more detailed than those in your original funding application. You should take account of the feedback you received on your original application and what you learnt during the kick-off workshops. You are required to send a copy of the final version of this document to Catherine Capone at the Royal Academy of Engineering before starting your project. This is a formal requirement of your contract with the Academy.

You should refer to the information you provide in this document when you come to write the Final Report at the end of your project.

**2a. Updated project objectives**

List your project objectives in the box below, taking account of any feedback you received on your application and any changes you have made to your original plans since submitting your proposal. Please ensure that these objectives are: Specific, Measurable, Achievable, Realistic and Time scaled.

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| **Updated project objectives** |
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**2b. Covid-19 contingency plan**

In the following table describe how you would modify your plans where there to be further disruption caused by the Covid-19 plan. What impacts might further lockdowns, social distancing measures or the knock-on effects of past restrictions have upon your programme and what strategies would you use to address these? For example:

* If you are planning live events in schools or at other venues, how would you adapt these to run them as socially distanced events
* If you are unable to meet with the engineers in person, how would you run training and briefing sessions; how would they work with you to develop your activities
* If you are unable to source key materials or equipment

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| **Covid-19 contingency plans** |
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**3.** **Key outcomes**

Grant-Holders are required by the Academy to conduct an evaluation of their project. You will be asked to summarise the results of this evaluation in your **Final Report Form**. In the following sections, you need to record the key outcomes you aim to achieve for both engineers who take part in the project and public audiences you reach with your activities. These outcomes have been divided into three categories:

* **Reach** – the number and range of engineers you will involve in the project and what training you will provide for them; the number of activities you will deliver and the type and number of public audiences you aim to reach through your activities. Which under-served audiences you intend to reach and how you plan to engage them.
* **Impact** - how engineers will feel about the training they received and the activities they helped develop and deliver. How the public will feel about the activities they participated in.
* **Learning** – the benefits that will be gained by the engineers and your public audiences. These learning outcomes should include knowledge and understanding gained, impact on attitudes, skills developed.

You will be asked to provide data in your Final Report about the extent to which you met these Reach metrics. Please be realistic in setting these targets, taking into account the time and budget you have available.

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| **Reach** |
| Number and type of activities that you aim to deliver |       |
| Number of engineers you aim to involve in your projectProportion of female engineers you aim to recruit |       |
| What training you will provide for the engineers involved in your project |       |
| Target numbers and type of audience[[1]](#footnote-2) you aim to reach (see footnote for further details) |       |
| Under-served audiences you aim to reach (see information below for example categories) and how you will do so e.g. which partner organisations you will work with, what channels of communication to promote your activities to the audience, choice of venues, co-creation of content with the community etc |       |

By under-served audiences we mean segments of the general population who are under-represented among STEM engagement audiences and/or among the engineering profession. They can include:

* Women and girls
* People of Black, Asian and other Minority Ethnic heritage
* People from socio-economic categories NS-SEC 5-8 or living in communities with above average indices of multiple deprivation[[2]](#footnote-3)
* People living in areas with high indices of Multiple Deprivation
* Pupils receiving Pupil Premium funding (or equivalent for the devolved regions)
* Young people not in education, employment or training
* People with a disability or long-term illness
* People in living in rural areas with limited access to services e.g. a science centre or university; libraries

We strongly recommend focusing on just one or two of these audiences rather than risk spreading your resources too thinly. We also encourage grant holders to look beyond the traditional under-served audiences to those who are less often targeted by STEM engagement activities.

Please note: when referring to people from underserved audiences please refer to the latest advice on the use of terminology. For example, see:

<https://www.ethnicity-facts-figures.service.gov.uk/style-guide/writing-about-ethnicity>

The Academy requires you to collect data about the socio-economic profile of the public audiences you reach. To do this we ask that you to gather one or both of the following sets of data (depending on the type of audiences you aim to reach).

* For adult and family audiences: the full post-codes from a representative sample of **adult** attendees (NB we **don’t** want you to ask children for this information)
* For school audiences: the name and address of each school and the number of pupils from that school who took part in your event

Using this data, and the links that we will provide you with, you will:

1. Use the Government post-code look-up tables to calculate the proportion of adults/parents who come from areas of high IMD (Indicators of Multiple Deprivation) or the equivalent data for Scotland and Wales

and/or

1. Use the Government data on school level allocation of Pupil Premium funding (or equivalent data for Northern Ireland, Scotland and Wales e.g. access to free school meals) to estimate the proportion of pupils you engaged who are receiving this funding.

The Academy will provide you with links to the relevant Government post-code look-up tables and school data spreadsheets.

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| **Impact**We require all grant holders to provide some standardised feedback about their impact upon **public audiences,** in addition to their own, more detailed, evaluation. To do this we have designed standardised questions for **public audiences** that need to be incorporated into your surveys or questionnaires (see below). You will be asked to provide the results of from these questions in your final report.  |
| **Two standardised questions for children aged 8-13 years**A. Thinking about the [activity][[3]](#footnote-4) you just took part in, did you …

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Yes** | **Not sure** | **No** |
| Enjoy the [activity]? |  |  |  |
| Learn something new about engineering? |  |  |  |
| Find out more about what engineers do? |  |  |  |
| Find out how engineering improves our lives? |  |  |  |

B. Are you …?

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Yes** | **Not sure** | **No** |
| Interested in finding out more about engineering? |  |  |  |
| Likely to recommend this [activity] to your friends or family? |  |  |  |

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| **Standardised questions for teenagers (aged 14+) and adults**Thinking about the **[activity][[4]](#footnote-5)** you just took part in: to what extent do you agree or disagree with the following statements?

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Yes** | **No** | **Not sure** |
| I enjoyed the [activity] |  |  |  |
| I learnt something new about engineering |  |  |  |
| I gained a deeper understanding of what engineers do |  |  |  |
| I have a better understanding of how engineering improves our lives |  |  |  |
| It inspired me to find out more about engineering |  |  |  |
| I would recommend this [activity] to other people |  |  |  |

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If for any reason you experience difficulties using these standardised questions – or if you want to change the wording or format - please contact the Academy’s evaluation consultant Ben Gammon on benjamin.gammon@btinternet.com.

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| **Learning**The Academy requires you to gather data about the learning outcomes from your project for both engineers and public audiences. To help you plan this part of the evaluation we ask that you define your intended learning outcomes in the table below. These learning outcomes should be described as **bullet point objectives**. We have added some examples in the section below for guidance. Please modify and add to these outcomes as appropriate for your project |
| **Learning outcomes for your engineers** |
| **Knowledge and understanding of public engagement**  | * Increased knowledge about how to engage the public through the use of …
* Increased understanding of how to plan …
* Increased understanding of the challenges around engaging under-served audiences such as …
 |
| **Attitudes towards public engagement** (in what ways do you intend to change their attitudes) | * Increased awareness of the benefits of public engagement to industry such as …
* Increased awareness of the benefits of public engagement to engineers such as …
 |
| **Motivation** (to do what) | * Increased confidence to …
* Motivation to do more public engagement with audiences such as …
 |
| **Specific public engagement skills**  | * Develop skills of …
 |
| **Learning outcomes for your public audiences** |
| **Knowledge and understanding of engineering & engineers** (what in particular will they learn about) | * Increased understanding of the role of team-working and creative problem-solving in engineering
* Increased understanding of how engineering benefits society through … [what specific benefits will your project demonstrate]
* Increased understanding of how engineering …
 |
| **Attitudes towards engineering and engineers**  | * Perceive engineers as …
* Increased awareness of …
 |
| **Motivation** (to do what) | * Increased motivation to find out more about [what specific areas of engineering are you trying to inspire people about?]
 |
| **Specific skills developed** (if relevant) | * [What specific skills will your audiences develop through taking part in your activities?]
*
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**4. How you will evaluate your project**

Describe below **how**, **when** and **where** you will gather data from the participating engineers and your public audiences (including postcode data from adult visitors if relevant). Please also describe **how** you will encourage them to provide thoughtful and candid feedback.

To conduct this evaluation, you will probably need to use one or more of the following methods:

* Hand out self-completion questionnaires
* Conduct an online survey
* Conduct interviews in person, video-link, phone
* Conduct focus groups
* Run online discussion panels
* Observe engineers engaging with members of the public
* Analyse data from bookings, social media, website usage etc.

Each of these methods has strengths and weaknesses. It is important to choose those that will most effectively address the research objectives set out in this document. If you have any questions, please contact the Academy’s evaluation consultant Ben Gammon on benjamin.gammon@btinternet.com.

When planning your evaluation strategy please bear in mind the potential challenges associated with the Covid-19 pandemic. Some approaches may not be feasible during periods of lockdown or social distancing restrictions.

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| **Evaluation methodology** |
| **Participating engineers:****How** will you collect data from engineers?**When & Where** will you collect data from engineers? **How** will you ensure they are willing to take part & provide candid, thoughtful responses?**Public audiences:****How** will you collect data from your public audiences?**When & where** will you collect data from your public audiences? **How** will you ensure they are willing to take part & provide candid, thoughtful responses? |

**4. The pre-project questionnaire & long-term tracking survey**

Complementing the evaluation you conduct, the Academy also gathers information about your engineers.

At the start of your project, we gather background demographic information about your engineers via an online ‘pre-project questionnaire’. Twelve to eighteen months after your project has finished, the Academy conducts an online ‘long-term tracking survey’ of all the engineers involved in *Ingenious* grant funded projects so as to assesses the longer-term impact of the scheme.

The results from these surveys are reported to our funder, the Department for Business, Energy and Industrial Strategy. This helps the Academy secure future funding for the *Ingenious* grant scheme.

To run the pre-project questionnaire and long-term tracking survey the Academy requires all grant holders to do the following:

1. At the start of your project – e.g. when you run your training for the engineers or at an early briefing session - **provide all the engineers with a link to the online pre-project questionnaire**.
2. This gathers **basic demographic data** about them, and their email addresses so that the Academy can send them the long-term tracking survey 12 months after your project has finished
3. **The link is here**: https://r1.dotdigital-pages.com/p/4S2P-5OT/pre-project-questionnaire-for-engineers
4. **Remind and encourage** your engineers to complete the pre-project questionnaire – providing any background information they require
5. Brief your engineers about the **forthcoming long-term tracking survey** – when they will receive the invitation, how it is administered, what it will be covering, and why the Academy requests this information

Please note: the above are requirements of your funding agreement with the Academy.

All data that the Academy receives about or from the engineers is gathered, stored and used in compliance with the General Data Protection Regulation as described below.

**5. Declaration**

**Your promise**

[ ]  {Please check} I confirm that I have read all the sections of this document covering the requirements of the *Ingenious* grant funding and have/will brief other members of my team about them as required.

**Our promise**

The Royal Academy of Engineering is committed to ensuring that the personal information entrusted to us is processed in accordance with the Data Protection Act 1998, the Privacy & Electronic Communications Regulation 2003, and the General Data Protection Regulation (EU) 2016/679 (GDPR). The Academy will ensure that all data provided by the engineers is securely stored and is only used for the purpose stated on the questionnaire. Once the long-term tracking survey has been conducted any contact details provided will be securely deleted unless individuals have asked to stay in touch with the Academy. Full details of our privacy policy are available at <https://www.raeng.org.uk/terms-and-conditions/privacy-policy>.

1. This could include the following groups: Families with children aged …, school children (specify age group or Key Stage), university students, primary &/or secondary teachers, higher education professionals; teenagers outside of school; adults without specialist knowledge of STEM, adults with specific interests [↑](#footnote-ref-2)
2. See <https://en.wikipedia.org/wiki/National_Statistics_Socio-economic_Classification> for a definition of these categories; see <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019> for more information about IMD [↑](#footnote-ref-3)
3. You may want to change the word ‘activity’ to something that more clearly describes what your audience actually experienced e.g. workshop, theatre performance, film, festival etc. [↑](#footnote-ref-4)
4. As above you may want to change the word ‘activity’ to something that better describes what your audience experienced e.g. workshop, theatre performance, film, festival etc. [↑](#footnote-ref-5)