**Project** **Plan**

**Instructions:** Please complete all sections unless the section specifically states it will be completed by SmartCrete CRC. Some fields contain prompts and clarifications highlighted in yellow. Please address as many of these prompting questions as possible as these will be key areas that will be assessed.

## **PROJECT SUMMARY**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Project Title** | |  | | | **Duration (Months)** |  |
| **Project Lead** | |  | **Project Lead Organisation** |  | | |
| **Industry Lead** | |  | **Industry Lead Organisation** |  | | |
| **Research Provider Lead** | |  | **Research Provider Lead Organisation** |  | | |
| **Project Commencement Date** | |  | **Project Completion Date** |  | | |
| **Project Objectives (overall project summary)** | | [Insert details: Provide a high-level summary of the project. (Tip: Some may find it easier to complete this summary section last)  What are the specific problems or challenges your research is intended to address? Why are these problems not being solved today? E.g. cost, complexity, lack of knowledge, etc? Who faces these challenges and problems today? Capture the cost to the industry in $ where relevant.  How will your research go about tackling these problems? What outputs will your research produce, and how will you measure success? How will these outputs be adopted by industry? And what impacts and benefits will the project unlock? Capture the value of the opportunity in $ where relevant. Who will use/benefit from the research (end user)?  What will be the steps to develop it for a commercial buyer?  For this summary, please use as much plain-language as possible optimised towards a non-technical audience. Technical language can be reserved for subsequent sections of this project plan.] | | | | |
| **Project Hypotheses/Assumptions** | | [Insert details:  What are the key hypotheses that this research will prove or otherwise create knowledge around? How will the research solution or outcomes relate to these?  What are the underlying key assumptions to be tested?  How will you know if you have proven or disproven your hypotheses and assumptions? What measurements and metrics will you use to define success? Refer to SMART metrics.] | | | | |
| **Unique Value Proposition for Industry** | | [Insert details:   1. Describe how this research is unique and not already investigated by others, or has been investigated by others and this research looks to build upon that. 2. Describe how the deliverables and outputs are unique, and not already adopted in another form in industry today. 3. Describe what competing solutions there are either in-market or emerging, and the competitive advantage this research will achieve. 4. Explain why industry / end user will choose this solution (eg cost, more sustainable, easier to use, etc) | | | | |
| **Project Methodology** | | [Insert details:  Based on the key hypotheses/assumptions of your research, what activities will be applied to test these, and how will you measure/define whether your hypotheses/assumptions have been proven/disproven?  Include the types of studies, types of tests, prototyping and piloting activities where appropriate.  What materials, facilities and equipment will be required?  What prior work will this build upon? Include research, papers, projects and intellectual property that this project will leverage. Is there any background IP that the university will contribute? Is there background IP that you require from industry partners?  How is this research unique/novel? Is there competing research, solutions or technologies that solve for the same industry problems, and how is this solution better than other market leaders? Who are these competing individuals, research organisations and/or businesses?  How will you validate your outputs and measure success? How would you define that your outputs are successfully delivered? Is it based on performance? Feasibility/viability/desirability? What are the metrics your tests will be measure against? Are they based on an existing benchmark or industry standard? Be specific and measurable.  SmartCrete recommends broad engagement throughout project delivery with relevant customers, end users, supply chain participants and relevant industry/government bodies to ensure awareness and feedback.] | | | | |
| **Project Deliverables (summary)** | | [Insert details: Create a summary list of deliverables, tangible outputs, and resulting IP.  Deliverables are not “activities”. Be specific where possible when describing resulting including form-factor (e.g. reports, digital/physical, etc) and specifications/features of the outputs.  To create a timeline of deliverables, please use the Deliverables Schedule in later parts of this document.  SmartCrete recommends:   * Breaking down high level deliverables into sub deliverables to set an appropriate level of detail and set partner expectations early. * Acceptance tests for deliverables and specific definitions of success which are linked to your research hypotheses.] | | | | |
| **Impact Summary**  **(Objectives and Strategies)** | | [Insert details] What is the impact or outcomes likely from this work?  Value to the industry: What specific industry challenges do you intend to address? Who faces these challenges, and how do these challenges manifest in terms of cost, productivity, or other issues? What are some specific blockers and problem types to overcoming these challenges?  What impacts do you expect to generate? Impacts should include value to the economy or environment, value that can be unlocked by overcoming the identified industry problems, value propositions for end users, business case benefits for an industry partner, etc. Be specific and measurable. Are there key governmental or institutional strategic priorities that this project aligns to?  You may wish to reference specific impact outcomes (per SmartCrete Grant Guideline):   * Improve supply chain competitiveness * Enhance sectoral innovation * Enhance asset performance and longevity * Emissions reduction   Impact Pathway: How will the outputs of the research be adopted to create impact? What is the adoption pathway for the research outputs? Who will be best placed to own or leverage, build/manufacture/deploy, or take to market, or operate the Project IP to generate value in the industry? What key enablers such as infrastructure or industry bodies will need to be involved?]  Can you describe what would have happened in the absence of the project? | | | | |
| **Collaboration, Equity & Diversity** | | [Insert details: describe the diversity in the project team considering gender, ethnicity, age and skill sets. Describe how you will implement inclusive practices in the delivery of the project] | | | | |
| **Utilisation of  Change Enablers** | **STANDARDS:** | [Insert details: Are there Standards that this project will need to consider and work towards? Will there be project learnings that will form the basis to update current Standards? Is there a process built into the project method to enable this?] | | | | |
| **TRAINING:** | [Insert details: what new training programs will be required to upskill the workforce? Whom would be best placed to deliver these programs (Universities, Tafe, Industry associations)? What level of skills will be required (Degree, Certificate, Accreditation)? How will the project consider these enablers/issues?] | | | | |
| **FINANCIAL MODELLING:** | [Insert details: What is the cost / benefit of the proposed solution compared to the current offering? What supply chain investments will be required to facilitate market access? What additional costs will be incurred to supply the product to the market (E.G transport, storage, mix facilities)?] | | | | |
| **PRODUCT DEVELOPMENT:** | [Insert Details: What aspects of productisation have been considered *during* the project e.g. manufacturability, miniaturisation, deployment requirements, services/operating models, sales and marketing, suppliers/distributors, etc. Who will be required to support this proposition (E.G Associations, asset owners, suppliers)?] | | | | |

## **APPROVALS & ETHICS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Approvals Required?** |  | **Specify Safety Approvals** |  | **Safety Approvals  Responsible Party** |  |
| **Ethics Required?** |  | **Specify Required Ethics** |  | **Ethics  Responsible Party** |  |

## **PROJECT PARTICIPANTS**

| **Organisation Name** | **ABN** | **Organisation’s Role in Project (e.g. research provider)** |
| --- | --- | --- |
|  |  |  |

## **PERSONNEL**

To be added from the Project Budget Spreadsheet

## **PROJECT BUDGET SUMMARY**

Please copy from the Project Budget Spreadsheet

|  |  |  |  |
| --- | --- | --- | --- |
| **Cash Budget – Non-Staff** |  | **Total Non-Staff In-Kind Commitment Value** |  |
| **Cash Budget – Staff** |  | **Total Staff In-Kind Commitment Value** |  |
| **Total Cash Budget** |  | **Total Staff In-Kind Commitment FTE** |  |
| **Project Budget (Cash and In-kind)** |  | **Total In-Kind Commitment** |  |

**cash contribution**

Please copy from the Project Budget Spreadsheet

| **Organisation** | **Cash Contribution Amount** |
| --- | --- |
|  |  |
|  |  |
|  |  |
| **Total** |  |

**Cash Funded Items - Staff**

To be added from the Project Budget Spreadsheet

**Cash Funded Items – Non-Staff**

To be added from the Project Budget Spreadsheet

**staff in-kind commitments**

To be added from the Project Budget Spreadsheet

**NON-STAFF in-kind commitments**

To be added from the Project Budget Spreadsheet

**DELIVERABLES & PROJECT FUNDS PAYMENT SCHEDULE**

*Create a list of deliverables and tangible outputs against an expected timeline. Be specific where possible, including form-factor (e.g. reports, digital/physical, etc) and specifications/features of the outputs.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Deliverable Number** | **Deliverable Name and Description** | **Organisation** | **Due Date** | **Payment Amount\*** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

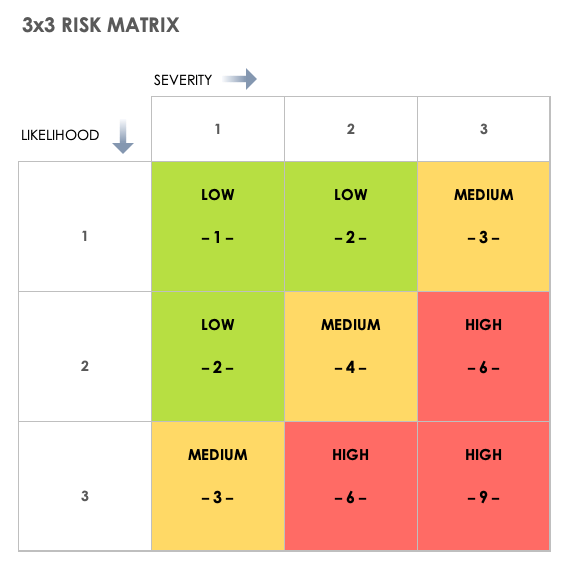
*\* All payments are subject to the relevant milestone having been achieved to the reasonable satisfaction of SmartCrete CRC and the Project Leadership Team as well as receipt of a tax invoice in accordance with clause 8.3(e) of the Agreement.*

**Project operation Fees**

| **Organisation** | **% of Project Budget** | **Payment Amount\*** | **Due Date** |
| --- | --- | --- | --- |
| Research organisation A | 20% |  |  |
| Research organisation B | 20% |  |  |

**Project RISKs**

| **Description** | **Risk Category** | **Inherent Likelihood  and Severity** | **Overall Inherent Risk** | **Mitigation Strategy** | **Residual Likelihood  and Severity** | **Overall Residual Risk** |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | [Insert – what your risk controls (prevent risk) and risk countermeasures (manage realised risks)] |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |



**Project Risk Examples – for reference only**

|  |  |
| --- | --- |
| **Risk Category** | **Risk Type** |
| Technical | Equipment, technology, digital, performance, quality |
| External | Market, suppliers, environmental |
| Organisational | Resources, logistics, business |
| Project management | Dependencies, schedule/scope/cost, communication, |
| Etc |  |

**INTELLECTUAL** **PROPERTY**

*As non-listed background/pre existing material is used, it must be added to the IP register and SmartCrete CRC advised.*

*All IP is intangible; tangible refers to physical assets.*

**Background IP**

A description of the Background IP (“**BIP**”) is listed below, along with any warranties, restrictions or conditions. All BIP will also be listed in the IP register for the Project maintained by the Project Leader.

|  |  |  |
| --- | --- | --- |
| **Party providing BIP** | **Description of BIP***(If subject to registered protection, full registration details should be provided)* | **Restrictions or Conditions on Use & exceptions to warranties***(Include any restrictions/conditions that would apply to permitted Commercialisation and access to Improvements to BIP)* |
| [Name] | [details, including type of IP (e.g. patent, copyright, etc)] | [details] |
| [Name] | [details] | [details] |
| [Name] | [details] | [details] |

**Project IP**

A description of the Project IP (“P**IP**”) is listed below. All PIP will also be listed in the IP register for the Project maintained by the Project Leader. **Typically SmartCrete CRC is the default owner of PIP during development acting as the neutral party, and provides licencing to project participants appropriate to their role in commercialisation/adoption (see Commercialisation Rights section below).**

|  |  |  |
| --- | --- | --- |
| **Name of Project IP** | **Description of Project IP** | **Owner** |
| [details] | [details, including type of IP (e.g. patent, copyright, etc)] | [Name] |
| [details] | [details] | [Name] |

**COMMERCIaLISATION Rights**

*Note: Certain parties have rights to use the Project IP under clause 18.3. The Commercialisation Rights granted below are granted as at the Commencement Date and are in addition to the rights granted under clause 18.3.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Project IP to which Commercialisation Rights granted** | **Commercialisation Project Party** | **Commercialisation Rights granted** | **Commercialisation Conditions** *(include any restrictions on Commercialisation e.g. territory, field, etc)* |
| [Name] | [Please list all Project Participants that have the right to Commercialise the Project IP] | [details] | [details] |
| [Name] | [details] | [details] | [details] |
| [Name] | [details] | [details] | [details] |
| **Rights to share of Net Commercialisation Income** | | | |
| ***Party*** | ***Share of Net Commercialisation Income and basis for calculation*** | | |
| SmartCrete CRC | [insert details of amount of/basis for calculating that share details] | | |
| [Name] | [insert details of amount of/basis for calculating that share details] | | |
| [Name] | [details] | | |
| **Strategy for protection of Project IP** | | | |
| [insert details] | | | |

**Detailed Impact and commercialisation Plan**

|  |  |
| --- | --- |
| **Objectives and Strategic Horizons for Adoption** | [Insert details: summarise how will the research outcomes and Project IP will be adopted by industry in the near term and long term:   1. Horizon 1: During the project (e.g. engagement with industry?) 2. Horizon 2: Immediately after the project (e.g. a project partner goes-to-market? Is there further research needed to bring the research outputs to a higher Technology Readiness Level (TRL) or commercial investment needed to manufacture or otherwise scale? 3. Horizon 3: Long term ramp-up to larger and larger scale adoption (e.g. access to market? What is the intended final business or adoption model?)   If further research is required, what is it and should a project proposal be developed during this current project?  To answer this section, draw inspiration from business concepts such as Go-To-Market strategies and Product Roadmaps. |
| **The following section describes how the project participants intend to sustain the long-term impact of the research outputs/outcomes after the project is completed.**  It has many parallels to the well-known and widely used Business Model Canvas (BMC), and is relevant for non-commercial research (i.e. where the outcomes of the research will be made publicly available) and when the project outcomes/deliverables/IP will be available commercially to the industry via a business, product and/or service. We understand that the content below will be assumption based, or best guesses. A well structured research project will provide opportunities test/prove these assumptions.  **Resources:**   * <https://en.wikipedia.org/wiki/Business_Model_Canvas> * <https://www.youtube.com/watch?v=IP0cUBWTgpY&t=219s&ab_channel=TheBusinessChannel> * Also recommend Googling some example BMCs of similar scenarios.   **Customer or End User Segments** | |
| **Domestic target markets, customers and end users** | [Insert: In the Australian context, who are the customers? Who stands to benefit from and utilise the research outputs? Who are the end users of the outputs? Who would pay to adopt or access the outputs of the project? What is the total addressable market in $? How much of this market could be addressed by this research in $?] |
| **International target market, customers and end users** | [Insert: In the international context, who are the customers? Who stands to benefit from and utilise the research outputs? Who are the end users of the outputs? Who would pay to adopt or access the outputs of the project? What is the total addressable market in $? How much of this market could be addressed in $?] |
| **Industry, Customer and End User Access/Engagement** | |
| **Industry channels to market,** | [Insert: Through which project parties will the industry interact with to adopt the research outputs? What forums will need to be engaged? Are supply chain participants outside of the project required? What distribution networks and channels are required?] |
| **Relationships with market** | [Insert: How will the customers or end users of the research outputs going to access and interact with the solutions? Will it be self-service or some kind of customer-based service? Is there distribution, sales or maintenance services required? Who will perform these?] |
| **Partners and Roles** | [Insert: What organisations are critical to be involved to enable successful adoption of the research outputs, and what are their roles?  Are they supply chain participants? Are they industry bodies? Are they government or other authority bodies? Standards? Are these partnerships once off or ongoing?  Are they existing project participants or not currently engaged in the project? You may have already captured some under the “Change Enablers” section.] |
| **Long term operation of and access to research outcomes and outputs** | |
| **Operational activities** | [Insert: What are the ongoing activities required to keep the research outcome and outputs accessible for the industry? Is there ongoing maintenance or service management needed? Is there manufacturing and distribution activities required? ] |
| **Physical, digital and people resources** | [Insert: What kinds of assets will be required to enable access for the industry? Are these capital assets, existing assets, digital assets? What people, skills, business functions and teams are required?] |
| **Financial Resources: Costs and Revenues** | |
| **Cost structure** | [Insert: Referring to the types of operational activities and resources from the previous section, what types of costs will be associated with enabling industry adoption of the research outputs? This could include capital costs, operational costs, wages, licences, etc.] |
| **Revenue, income and funding sources** | [Insert: What sort of cashflows are expected in order to run, maintain and grow the adoption of the research outputs by the industry? Will this be sourced from end users/customers in the form of revenues, income and profits? Equity or debt capital? Internal business case funding?]  Hugh – I’m wondering here if this is too hard to ask academics and even Industy? Is the question we need answering more around …who will likely be the first customer? Can a sale happen at the end of this research project or is there further research / development required? How will this be funded? |
| **Adoption and Commercialisation** | |
| **Adoption risks and risk management strategies** | [Insert: What barriers will there be to adoption of the research outputs at the end of the project?  How will the research outcomes be scaled over time?  Who and how will IP be managed and protected?  Are there competing solutions in market? Are there others developing similar solutions?  Revisit the above tables and identify which assumptions are most risky or require the most work to ensure adoption can happen.} |
| **How will the commercialisation of Project IP meet the objectives?** | [Insert: At what TRL will the project begin and what will be the resulting TRL? See link for [TRL Definitions](https://www.researchgrants.gov.au/resource-hub/defence-technology-readiness-level-trl-definition). What further commercialisation activities will be required to reach impact?] |
| **How will the commercialisation of Project IP meet the obligations under the Commonwealth Agreement?** | [CRC to complete with project team] |
| **Rules and processes for regular reviews** | [Insert: How will the project parties plan, review progress towards scaled adoption and commercialisation during and after the project?] |
| **IP owner** | [Insert: Identified   * owner of Project IP, and * their role to manage/protect IP, and * future role to take the IP to the broader market/industry, and * future role to grow or continue to innovate on the Project IP] |
| **Profit sharing model** | [Insert: With respect to revenues, incomes and profits, please provide a summary of the commercialisation rights and revenue sharing of project outcomes where relevant. Projects where some profits are distributed back into the research community and/or SmartCrete CRC will be viewed highly favourably for Commonwealth funds approval, because this will enable further opportunities for impactful research. Note that not all research projects will be commercial in nature – if not relevant insert N/A] |
| **Commercialisation Licence Details – if relevant** | |
| **IP Commercialisation Licensee** | [Insert: A list of project parties (not the IP Owner) who will have access to Project IP via commercialisation licence. If not relevant insert “N/A”] |
| **Materials** | [Insert: which of the particular Project IP will be commercially licenced to other project parties? If not relevant insert “N/A”] |
| **Scope** | [Insert: summarising the scope of permissions in terms of permitted acts, non-exclusivity or exclusivity and purpose for which the commercialisation licensed rights may be exercised. If not relevant insert “N/A”] |
| **Sublicensing** | [Insert: identifying whether the commercialisation licensee may sublicense and if so the extent to which permitted sublicensing is more limited than the licensed rights. If not relevant insert N/A] |
| **Duration** | [Insert: Identifying and the term of the commercialisation licence. If not relevant insert “N/A”] |
| **Territory** | [Insert: identifying the territory of the commercialisation licence. If not relevant insert “N/A”] |
| **Copy of licence** | [Insert: reference which contract schedule contains the commercialisation licences. If not relevant insert “N/A”] |
| **Contact for the licence** | [Insert: details of a contact person to whom any queries regarding the licence may be directed. If not relevant insert “N/A”] |

**USE OF NAME**

|  |  |
| --- | --- |
| **Requirements for use of a Party’s name, logo and branding** |  |