



AUSTRALIAN STEEL INSTITUTE

ASI

Steel Innovation Portal



Implementation Guide for Content Champions and Researchers

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ASI Steel Innovation Portal – Implementation Guidance for Content Champions & Researchers
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NOTE:

This document is uncontrolled once downloaded. Please refer to ASI Steel Innovation Portal for the most current version.

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FOREWORD

Background

The Australian Steel Institute (ASI) is the **peak industry association representing the complete steel value chain**. ASI provides representation, advocacy, technical and marketing leadership and an independent forum to facilitate steel promotion and industry competitiveness. ASI's mission is to increase the awareness of the benefits of steel and promote Australian made steel and steelwork as the product of choice.

Steel is an important segment of Australia's economy. Australia's steel industry and associated service suppliers **employ 100,000+ people and the industry has an annual turnover in excess of \$27 billion**. Steel is used in a diverse range of applications including buildings, bridges, structures, mechanical equipment, bins, silos, conveyors, resource projects, to name a few. The manufacturing of steel, steelwork and steel related products provides employment and, importantly, skilled training for the current generation, who form the basis of our **future advanced manufacturing capability**.

Steel is a **strategic industry** and it is essential to support this industry for our security and reliability of supply into the future.

To be able to compete in a fast-changing global business, the Australian industry understands that it must **invest in more productive and efficient practices and embrace innovation**. It is important that we learn and share ideas with our peers both locally and internationally. We must be able to capture and share the good ideas and emerging innovative concepts between all sectors of the industry and importantly, with the Universities and research hubs that currently exist.

The ASI is working closely with the Government in many policy areas to support the jobs and the future of the steel industry. We see the National Innovation and Science Agenda (<http://www.innovation.gov.au/>) as an appropriate enabler for our thoughts to engender better communication between the industry and the research community to capture the innovative ideas that will assist the Australian steel industry to grow into the future.

The Steel Innovation Portal

The ASI Steel Innovation Portal (SIP) has been developed as a mechanism to identify, capture and utilise practically, the incredible 'innovation capital' being continually generated in Australia in connection with steel and steelwork. The SIP:

- Allows universities, research organisations and manufacturers (and other relevant entities) to post structured details of the **research projects** being undertaken in a format that is standardised and egalitarian across the range of projects and institutions involved.
- Allows posting of **researcher bio's** in a structured format, with linkages to the relevant research projects.
- Allows **searching and data mining** by the local and international community on the range of projects and researchers in the portal.
- Facilitates **connectivity and communication** between industry and the organisations and researchers involved, both locally and internationally.
- Allows easy updating and editing of details to ensure **information currency**.
- Supports **matching of innovation ideas to research capability**.
- Facilitates **international communication and collaboration** with Australian stakeholders on steel related innovation.



Scope

This document is intended to cover implementation guidance for the persons charged with being either ‘**Content Champions**’ or ‘**Researchers**’ within the research institute submitting data to the portal.

Using this document and the portal

The current version of the portal is what we describe as the ‘Early Adopters Edition’. As with any software development, it is important as part of the development cycle to secure realistic feedback on usability from early adopters. Therefore, the portal functionality as you experience it is still evolving. We intend to update the portal functionality based on user feedback in this early adoption stage.

There are places in this document with informative text shown thus:

This is informative material and provides guidance, in particular on expected functionality.

The informative text generally provides commentary on functionality that may be planned to be improved in the next version of the portal and an explanation of any ‘work-arounds’ that may be necessary in this current period. Hopefully the informative text will help to set the context for the next published version and minimise any concerns that the current functionality is other than what should be expected.

Planning for future development of the Steel Innovation Portal

It is the intention of ASI that the Steel Innovation Portal remains current and relevant to the industry it is designed to serve. That not only means projects are regularly updated on the portal, but also that the portal functionality itself is continuously improved in a manner that is responsive to the needs of industry.

We therefore encourage you to provide feedback on functionality and suggestions for improvements. These inputs will be reviewed and considered on a regular basis and, where appropriate, planned into a schedule for update of the portal functionality. As a Content Champion or Researcher, please address any feedback to Peter Key at peterk@steel.org.au.

Revision of this document

This document is designed to be updated regularly based on review and feedback we receive. We encourage you to provide feedback to improve the portal and this document.



ASI STEEL INNOVATION PORTAL

IMPLEMENTATION GUIDANCE FOR CONTENT CHAMPIONS AND RESEARCHERS

1.0 INTRODUCTION

1.1 Portal Framework

The ASI Steel Innovation Portal is an industry standard website managed by a Content Management System (CMS). In this case the CMS utilised is the popular WordPress CMS, used on a significant number of websites internationally.

The portal is hosted by a third-party specialist provider, utilising a server network with industry standard protection and backup, meaning that the website information is secure and available 24/7.

As is typical with most CMS solutions, the majority of content development is undertaken in the 'back end', which is designed to be operated by 'administrators' with knowledge of the CMS operation and a level of security vetting commensurate with the intended application context. The information input in the 'back end' is configured by the CMS and displayed in the 'front end' as the website that users experience.

To ensure the security of information and robustness of the solution, a primary design intent when developing the system was to not allow other than approved trained users (administrators) to work in the back end. This however was in conflict with the desire for universities and other research organisations to be able to 'self-manage' the input of project and researcher details.

The portal framework is therefore configured such that the Content Champions and Researchers enter project and researcher information into a set of standard **information templates**. The information on these templates is then submitted to the portal back end where it populates the relevant dataset fields and can then be displayed on the portal front end (website).

Whilst it is the ultimate aim of the portal configuration that only ASI trained 'administrators' are allowed to work in the 'back end', during the early adopter phase Content Champions will be required to work in the back end when (and only when) they must approve project or researcher information entered by others. In the next version of the portal, we hope to upgrade the template functionality to include the ability for Content Champions to approve project and researcher submissions without needing to go into the back end.

1.2 Portal Operation

In most respects the portal operates as a conventional website, in an overall sense as a shop displaying products. The 'products' that the portal displays are:

- A standardised view of specific details about '**projects**'. A project is considered a research undertaking connected with any phase of the steel supply chain culminating in the operations and maintenance phase of a steel structure. Refer Section 1.4 for a more detailed definition of project scope. Projects may be currently underway or completed. Relevance to current application should dictate the project age submitted to the portal. That decision is left up to the content champion.
- A standardised view of the **researchers** involved in projects for the **research institute** concerned. This view is essentially a short biography with researcher image.



- Limited information about the research institutes. It is expected that full details would be available from the institute website, the link to which can be included in the portal. Research institutes may be public or private. The research institute or its department undertaking the research submitted to the portal must be located in Australia. However, where an Australian institution has overseas branches, the research undertaken by these branches can be submitted to the portal.

The significant operational functionality of the portal solution includes:

- The ability to display project details and the researchers linked to those projects. The display can include suitable images associated with the project.
- The ability to display biographical information about researchers.
- The ability to perform search based on the information provided for projects and researchers. This allows users to quickly locate relevant projects and researchers to suit their particular needs.

The input of information to populate the portal is described in Section 2 of this document. The operation of the front end of the portal in respect of user experience is described in Section 3 of this document.

1.3 Portal users

There are four primary types of portal user:

1. **The community user:** the primary day to day user of the portal is the user for which the portal access was developed, being the user who has the requirement to undertake searches on the breadth and depth of steel related research undertaken in Australia. The community user experiences the functionality described in Section 3 of this document.
2. **The ‘Content Champion’:** is the nominated representative of the research institute that intends to have a presence on the portal by populating it with relevant projects. The Content Champion has the primary interface with ASI as regards initially setting up the portal and day to day operation of the portal in respect of the researchers involved. Most importantly, the Content Champion has the responsibility to review and approve content before it is displayed on the portal front end. ASI do not take responsibility for the veracity or appropriateness of project or researcher information posted on the portal.
3. **The Researcher:** would be expected to provide biographical information for the portal and, most likely, to initially input the required information for the project details, which will subsequently be approved by the Content Champion.
4. **The Administrator:** the ASI appointed administrator who liaises with Content Champions, facilitates input of information when required and manages feedback on portal operation, pursuant to potential updates as and when required. The Administrator has access to the back end of the portal and can implement miscellaneous editing and the like that might not be possible from the front end interfaces provided to Content Champions and Researchers.

Detailed guidance on the portal functioning for Content Champions and Researchers is provided in Section 2 of this document.

1.4 Submission scope

The scope for project submission considered relevant to the portal is that connected to any phase of the steel supply chain. This would include, but not be limited to:

- Steel making and metallurgy
- Steel transport and distribution
- Steelwork detailing



- Steelwork fabrication and erection
- Steel structural analysis and design
- Steel structures and systems
- Prefabrication and modular construction
- Steel and steelwork surface treatment and corrosion protection
- Steel and steelwork sustainability
- Operations and maintenance of steel structures
- Loading on steel structures

The scope is deliberately wide ranging and encompasses anything that touches on the final provision of a steel structure and its ongoing operation and maintenance.



2.0 INPUT OF PORTAL INFORMATION

2.1 General

The input of information to initially create project, researcher and research institute details on the portal is expected to be undertaken predominantly by the researchers involved under the direction and coordination of the Content Champion. It is the responsibility of the Content Champion to select the appropriate researchers to input their own details and also to select the appropriate researchers who will input the project details.

All input details must be vetted and approved by the Content Champion before going live on the portal. Processes have been put in place to facilitate this.

During the 'early adopter' phase of implementation of the portal, certain functionality will be required to be undertaken by the ASI Administrator. This is a deliberate decision to not finalise the complete portal functionality until a degree of use and feedback by early adopters, which may influence the functionality of the final version of the portal.

Currently, the Administrator will set up the Research Institute and Content Champion roles in the portal, based on information provided by the content champion.

Expected future functionality is noted in the sections below to provide a context, inform early adopters and help facilitate meaningful review.

2.2 Overarching principles

The portal has been configured to be responsive to a number of overarching principles, including:

- An expectation that the project and researcher information provided will be presented in a reasonably uniform way to standardise and democratise the presentation.
- Clear, concise and relevant information as the primary objective.
- The presentation and functionality should avoid the perception of 'hard sell' of researcher or research institutions. The intent is to clinically document capability and capacity.
- The primary initial functionality for the portal is to support functional search capabilities for the community to utilise.
- There is an expectation that further related functionality may be added to the portal based on researcher and community feedback.
- There will be opportunities for sponsorship and limited advertising on the portal, which it is hoped will offset the costs of developing the portal and the ongoing maintenance of the portal. Any profit from the portal will be channelled into further beneficial programs for the Australian steel community.
- The portal will be free for research institutes to have a presence on and free for the community to utilise.

2.3 Expected Research Institution Process

The overarching principles have framed the expected processes for portal operation, including that for involvement of a research institute.

The expected process for initial and ongoing involvement of a research institute is:



1. After discussion with ASI and an understanding of the intent and operation of the Steel Innovation Portal, the research institute (usually the assigned Content Champion) provides the ASI Administrator with the name, position, contact details (phone, email), short bio and photo of the person selected to be the Content Champion. If there are two or more relevant Departments within the Research Institute that want to have a presence on the portal, then each Department should provide a Content Champion.
2. The ASI Administrator will liaise predominantly with the Content Champion. This facilitates clear communication lines.
3. The Content Champion will provide the Administrator with the relevant credentials to input the necessary department or institute details in the portal. The form of those details will be provided by the Administrator.
4. The Administrator will enter the Content Champion details in the portal. The Content Champion will receive an automated email from the portal indicating successful registration on the portal and will be provided with login credentials. The default password provided can be changed by the Content Champion.
5. The Administrator will provide the Content Champion with URL coordinates to the standard input templates for project details and for researcher details. These input templates are accessed via a password that will also be provided to the Content Champion.
6. The Content Champion decides which researchers will be providing credentials in the portal (based on the projects to be input) and sends the researchers an explanation of the portal and operation (this document) and the URL coordinates and password for the input templates.
7. The Content Champion decides which projects will be input to the portal and advises the relevant researcher to enter the information for the relevant project.
8. Once the researcher has input the project information, the project details will be queued for review and approval by the Content Champion in the automated portal system. The project details will only go live after the Content Champion has specifically provided approval.

Some limitations in the above process are recognised and will be considered for review in the next version of the portal, including:

- Regarding Point 3, we would hope to implement the ability for the identified Content Champions to input the Research Institute credentials themselves in the next version of the portal;
- Note that under the current configuration, the researchers are not registered users of the portal, but are simply able to use the templates to input standard information. The Content Champion is a registered user on the portal with login credentials.
- The researcher and project input templates are fundamentally a one-way information flow of details into the portal. There is currently no mechanism for entered details to be edited by researchers (although the Administrator can, of course, correct or update information in the back end). It is planned a future version of the portal will enable editing of entered information. In the interim, the Administrator should be contacted for any updates to information already in the portal.

2.4 Input of Research Institution details

For the current version of the Portal, the research institution details will be input by the Administrator based on information provided by the Content Champion. The information required is:

- The name of the research institution. If the entity seeking entry to the Portal is a department within the research institution, then both the research institution and department names should be provided.



- The address of the research institution
- A few paragraphs of text describing the research institution or department.
- A link to the appropriate website for the research institution or department.
- Contact details for the research institution.
- The logo for the research institution as an image file. Minimum size should be at least 600 pixels horizontally and vertically.

Details of the research institution should be input before entering details of the Content Champion, because the Content Champion record will be linked to the appropriate available research institution record in the portal.

2.5 Input of Content Champion details

For the current version of the Portal, the Content Champion details are input by the Administrator based on information provided by the Content Champion. The information required is the same as for a Researcher noted in Section 2.6.

2.6 Input of Researcher details

The Researcher details would usually be expected to be input by the actual researcher, following the URL link to the Researcher Input Template provided to the Researcher by the Content Champion. An example of the Researcher Input Template is shown in Figure 2.1.

Figure 2.1 Researcher Input Template



The information required to be input in the template is:

- **Researcher name:** which can include any qualifications, if appropriate.
- **Researcher description:** a short biographical description.
- **LinkedIn profile:** a link to the researcher profile on LinkedIn, if appropriate.
- **Researcher image:** a square image. The minimum size should be 300 x 300 pixels. However, the recommended size is at least 600 x 600 pixels. Images taken with a standard phone or 'selfies' are perfectly adequate if adjusted in size using any common graphic editing program, such as Microsoft 'Paint' which comes with Windows.

The fixed image shape is to ensure the correct formatting and placement of the image in the predefined display template on the portal front end. Images which are not square will be automatically cropped, the results of which may not be ideal.

2.7 Submitting researcher details

Once the researcher template has been completed, it can be submitted to the portal by hitting the 'Submit' button at the bottom of the template. The information in the template will be entered into the portal structure for the Researcher and queued for review and approval by the Content Champion before going live on the portal front end.

2.8 Input of project details

The project details would usually be input by one of the Researchers familiar with the project, as nominated by the Content Champion. The Researcher follows the URL link to the Project Input Template provided to the Researcher by the Content Champion. An example of the Project Input Template is shown in Figure 2.2.

Note that the researchers for the project must have been entered into the portal BEFORE the project template is accessed. This allows the project template to display all names of researchers for that institution and available for selection.



PROTECTED: ADD PROJECT

INSTRUCTIONS
Before entering your project details, please ensure you have created your researcher profiles or checked that they already exist in the Researcher section at the bottom of this form.
* Denotes a mandatory field

PROJECT DETAILS

Project Title *

Project Intro *

Project Excerpt *

A short description for project overview pages. One paragraph is all that is required.

Project Summary *

Project Status *

Dates *

Funding

Project Description *

Impact of Project

PROJECT IMAGES
Recommended sizing for the featured image should be a maximum of 1500 pixels wide and no less than 1000 pixels wide.
Recommended sizing for the banner image should be 1150 pixels width x 300 pixels height.
Recommended sizing for additional images should be a maximum of 1500 pixels wide and no less than 1000 pixels wide.
Also please ensure that images are cleared for use from a legal perspective.

Number of Participants

Featured Image *

Banner image
The image should be 1000px wide x 300px high and is used as the hero image for the project.

Additional Image 1
Maximum of 1500 pixels wide and no less than 1000 pixels wide.

Additional Image 2
Maximum of 1500 pixels wide and no less than 1000 pixels wide.

Additional Image 3
Maximum of 1500 pixels wide and no less than 1000 pixels wide.

Additional Image 4
Maximum of 1500 pixels wide and no less than 1000 pixels wide.

RESEARCHERS
If you want to create a new researcher profile please head to <http://innovate.steel.org.au/add-researcher/?u=University-of-Wollongong>

Principal Lead
Select a Researcher

Researchers
Select Multiple if required. Use shift-click to select range, ctrl-click to add individual.

- Andrew Jacobs
- Bonnie Johnston
- Clayton McDowell
- Dr David Piroon
- Dr Guanggang Zhang
- Dr Guanggang Zhang
- Dr Ray Longbottom
- Dr Steven Wood / veebeekem

SUBMIT NEW PROJECT

Figure 2.2 Project Input Template

The information required to be input in the Project Input Template is:

- **Project title:** this field is mandatory.
- **Project introduction:** an introduction to the project providing context and need for the work undertaken. This field is mandatory.
- **Project excerpt:** a short description of the project for the project overview page. One paragraph is all that is necessary. This field is mandatory.
- **Project summary:** a summary of the project with sufficient detail to provide the reader an understanding of the scope of the project. Usually would be 3-4 paragraphs. This field is mandatory.
- **Project status:** select from either 'ongoing' or 'completed'. This field is mandatory.
- **Dates:** textual input of date project commenced and expected or actual completion date. This field is mandatory.
- **Funding:** an optional field to provide details of predominant funding mechanism.
- **Project description:** an approximate half page description of the project. This description will be displayed as part of the full project details when displayed on the website. This field is mandatory.



- **Impact of project:** an optional field to provide an understanding of the potential impact of the project on current practice in the applicable area of application. It may also be appropriate to indicate here any follow-on projects planned.
- **Number of participants:** the number of researchers involved in the project. This field is optional.
- **Featured image:** the featured image for the project will be displayed on the summary tile for the project. The collection of summary tiles for all projects are displayed on the main projects page of the website. Note the recommended sizing for the images on the input template page. The portal will adjust images to suit the available width but these recommendations ensure good quality display and a reasonable layout for the display. The featured image is mandatory.
- **Banner image:** the banner image is displayed across the top of the full details page for each project. This image is optional but recommended. If there is only a single image for the project available (the featured image), a second image could be made by editing the featured image to the banner sizing recommended on the template page.
- **Additional images:** up to four additional images of the project may be input for display on the main project details page. Recommended sizing is indicated on the template page.
- **Principal lead researcher:** the lead Researcher for the project. The Researcher must have already been input into the Researcher database for the institution on the portal in order to be populated in the template and able to be selected from the drop-down list presented.
- **Researchers:** select multiple Researchers for the project in addition to the principal researcher. These Researchers must have already been input into the researcher database for the institution.

2.9 Submitting a project

Once the project template has been completed, it is submitted to the portal by hitting the 'Submit new project' button at the bottom of the template. The information in the template will be entered into the portal structure for the project and queued for review and approval by the Content Champion before going live on the portal front end.

The current implementation of the project and researcher input templates allow the user to submit the details to the portal, but does not allow access to the information after submission for editing or deletion. If editing or deletion of project or researcher details is required, contact the Administrator who can edit the details in the portal back end.

A planned future revision of the portal functionality will allow Content Champions and researchers to utilise the template screens to access and edit/delete project and researcher details.



3.0 WEBSITE USER INTERFACE AND OPERATION

3.1 Home page

The Home page of the Steel Innovation Portal is shown in Figure 3.1.

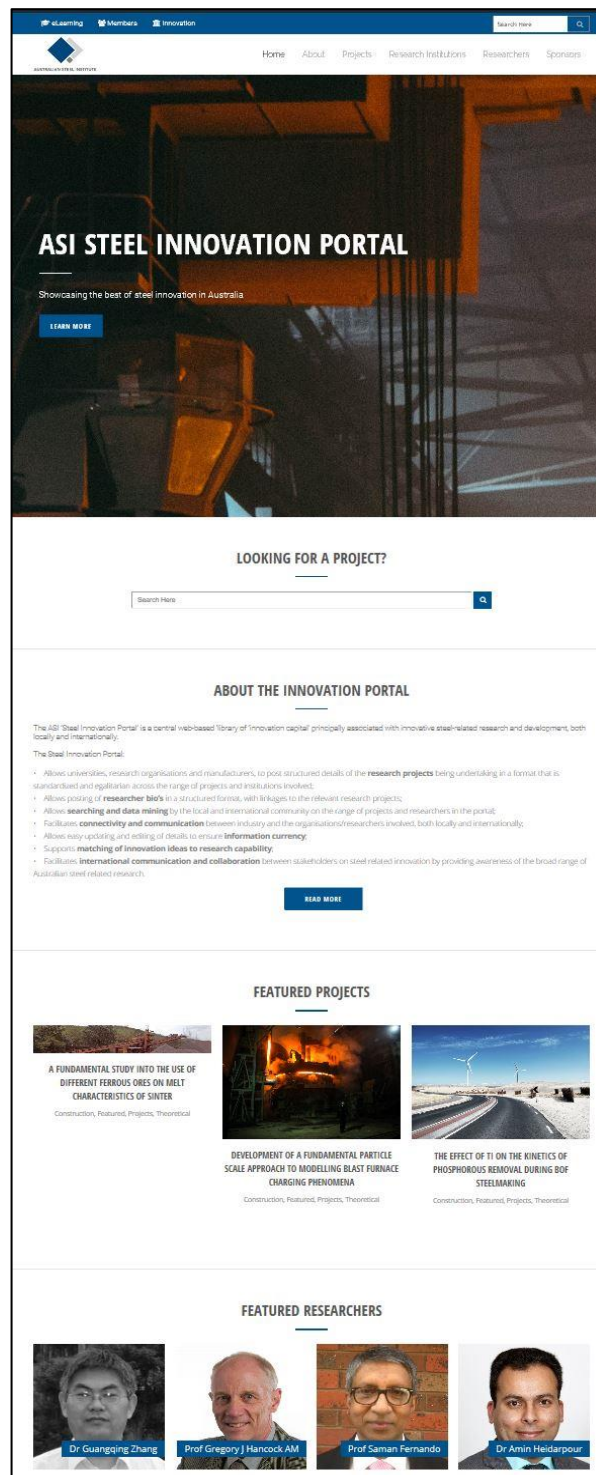


Figure 3.1 Steel Innovation Portal Home Page



The portal is laid out for easy vertical scrolling on both computers and touch enabled tablet devices.

The primary areas of the home page are:

- **The menu bar:** across the top of the page, providing access to the primary functions of the portal, including an 'About' screen, the main landing page for 'Projects', the main landing page for 'Research Institutions', the main landing page for 'Researchers' and the landing page providing details of our 'Sponsors'. Each of these is described further below.
- **Search functionality:** available either through the search box in the top righthand corner of the screen or in the central 'Looking for a Project' area.
- **About the Innovation Portal:** provides access to the background and context to ASI developing the portal.
- **'Featured Projects' and 'Featured Researchers':** provides a quick access view to a selection of the projects and researchers on the portal. These selections are presented in a randomised format.

3.2 Projects and Project Details pages

Accessing the 'Projects' menu selection from the home page displays the Projects landing page, as illustrated in Figure 3.2. Each project is displayed with the feature image and project title.



Figure 3.2 Projects Landing Page



Clicking on one of the projects on the Projects landing page displays the Project details page, an example of which is illustrated in Figure 3.3. The various components of the Project details page are labelled in the figure and relate to the template input detailed in Section 2.8.

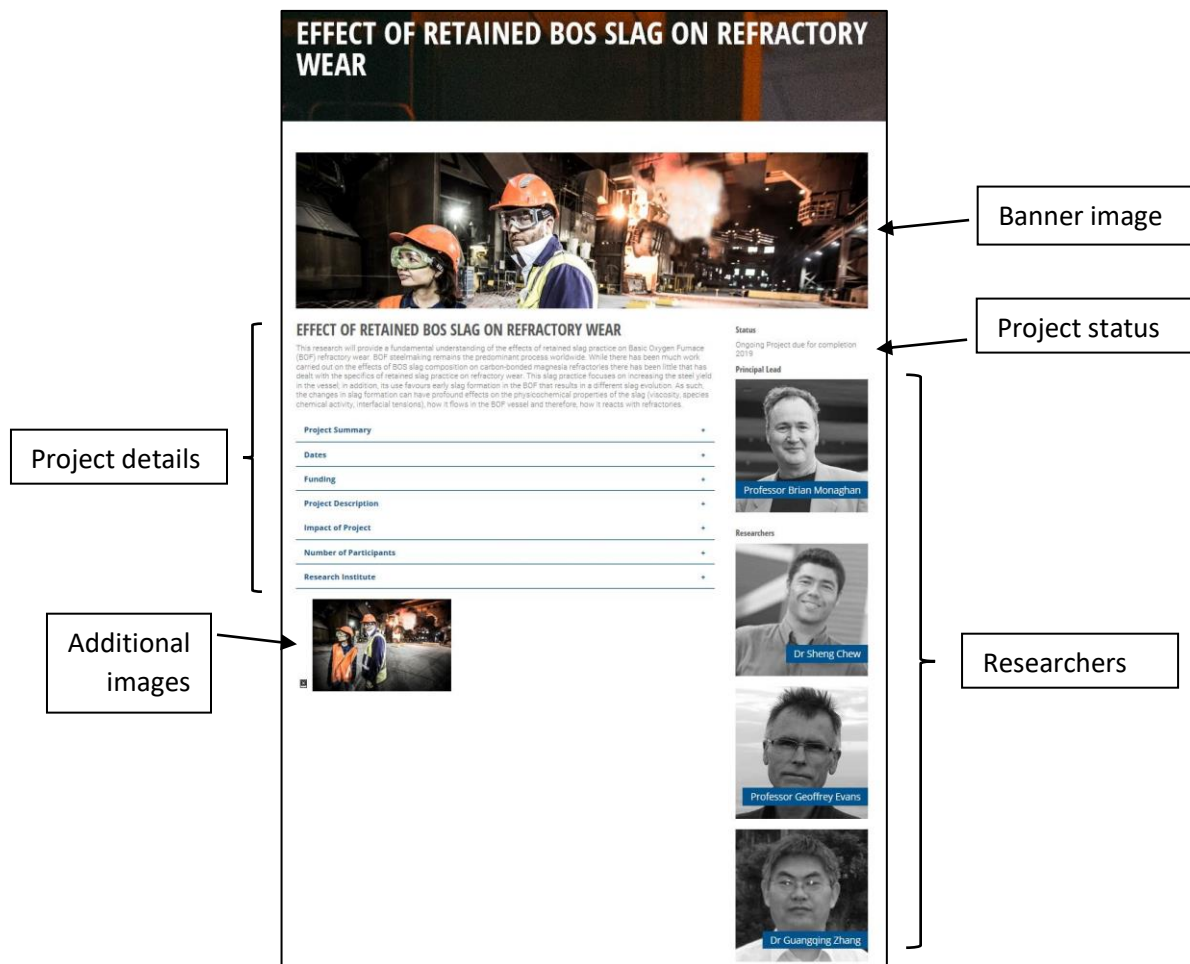


Figure 3.3 Project Details Page

The various project details can be expanded for additional information.

3.3 Researchers and Researcher Details pages

Accessing the 'Researchers' menu selection from the home page displays the Researchers landing page, as illustrated in Figure 3.4.

Clicking on one of the researchers on the Researchers landing page displays the Researcher details page, an example of which is illustrated in Figure 3.5.



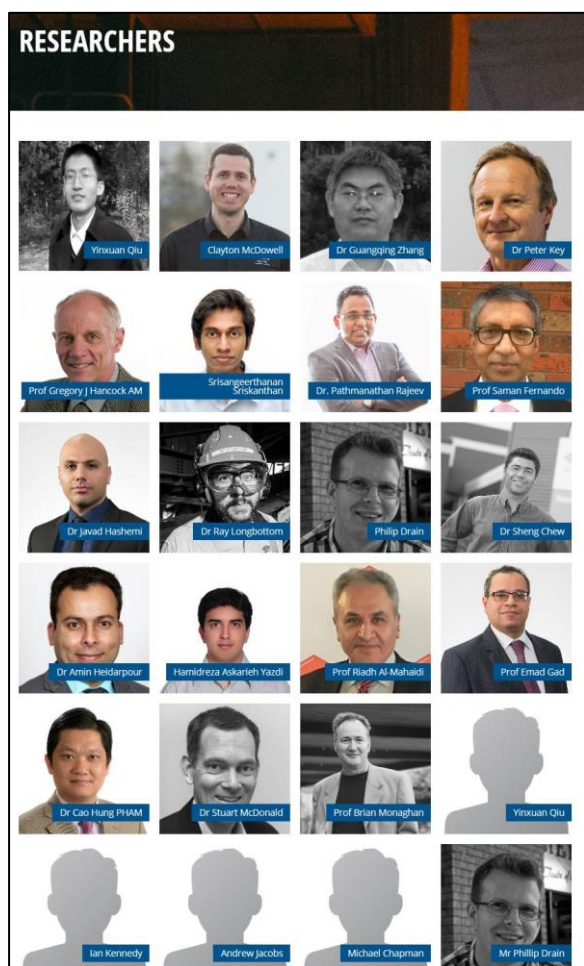


Figure 3.4 Researchers Landing Page



Figure 3.5 Researcher Details Page

3.4 Research Institutions page

Accessing the 'Research Institutions' menu selection from the home page displays the Research Institutions landing page, as illustrated in Figure 3.6. The display of Research Institutions can be further refined by State using the menu selection at the top of the page.

Clicking on one of the researcher institutions on the Research Institutions landing page displays the Research Institution details page, an example of which is illustrated in Figure 3.7. The Research Institution details page displays a range of information about the Research Institution, access by drop down item selection and including the details of the Content Champion.





Figure 3.6 Research Institutions Landing Page

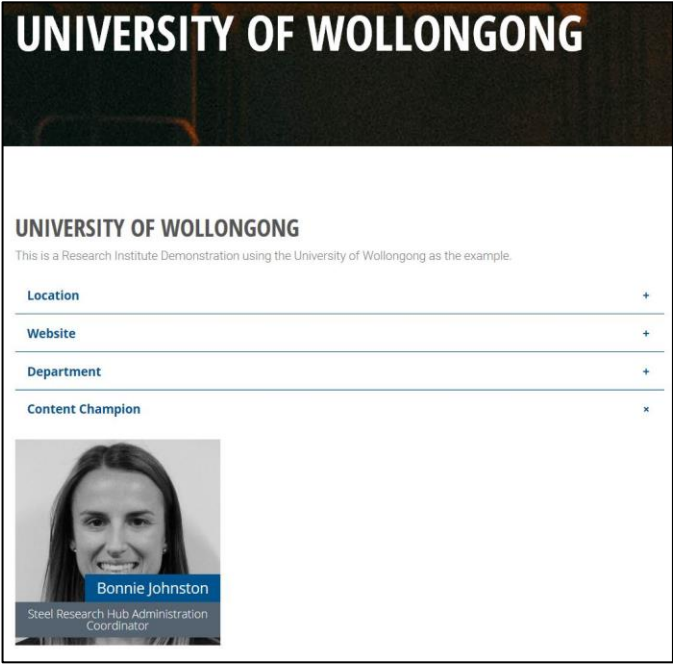


Figure 3.7 Research Institution Details Page



3.5 Search functionality

Search functionality is currently enabled through the main search box on the home page titled 'Looking for a project?' and also through the general search box located at the top right of the page. In both cases the keyword search will be performed across all project and researcher details.

A future version of the portal will include more advanced and powerful project and researcher specific search functionality.

