



## www.science.io Website Manual

### Introduction

The public facing site [www.science.io](http://www.science.io) is a bespoke web app originally designed and built by Pave and maintained by ScienceIO.

The aim of this site manual is to be a comprehensive reference for any changes to the site or its content, and to aid in troubleshooting any problems.

### Important links

Link		Description														
<a href="#">GitHub repo</a> <ul style="list-style-type: none"><li>→ <a href="#">Issue tracker overview</a></li><li>→ <a href="#">New issue</a></li></ul>		Source code and issues														
<a href="#">Contentful</a> <ul style="list-style-type: none"><li>→ <a href="#">Service status</a></li><li>→ <a href="#">Organization settings</a></li><li>→ Quick links to content:</li></ul> <table><tr><th>Pages</th><th>Items</th></tr><tr><td><a href="#">Home</a></td><td><a href="#">Investors</a></td></tr><tr><td><a href="#">Careers</a></td><td><a href="#">Persons (the team)</a></td></tr><tr><td><a href="#">Product</a></td><td><a href="#">Resources</a></td></tr><tr><td><a href="#">Resources list</a></td><td><a href="#">Testimonials</a></td></tr><tr><td><a href="#">Resource detail (article)</a></td><td></td></tr><tr><td><a href="#">Use Cases list</a></td><td></td></tr></table>		Pages	Items	<a href="#">Home</a>	<a href="#">Investors</a>	<a href="#">Careers</a>	<a href="#">Persons (the team)</a>	<a href="#">Product</a>	<a href="#">Resources</a>	<a href="#">Resources list</a>	<a href="#">Testimonials</a>	<a href="#">Resource detail (article)</a>		<a href="#">Use Cases list</a>		Content and assets
Pages	Items															
<a href="#">Home</a>	<a href="#">Investors</a>															
<a href="#">Careers</a>	<a href="#">Persons (the team)</a>															
<a href="#">Product</a>	<a href="#">Resources</a>															
<a href="#">Resources list</a>	<a href="#">Testimonials</a>															
<a href="#">Resource detail (article)</a>																
<a href="#">Use Cases list</a>																

<a href="#">Use Case detail</a> <a href="#">... other Pages</a>	
<a href="#">Vercel www</a> → <a href="#">Service status</a>	Site host
Netlify DNS → <a href="#">Service status</a>	DNS
<a href="#">Google Analytics</a> → <a href="#">Service status</a>	Analytics
Stripe → <a href="#">Products</a> → <a href="#">Service status</a>	Pricing page
Lever → <a href="#">Service status</a>	Job list & detail pages

## Content management

The majority of the content on the site is managed using the [Contentful](#) CMS. The organization (team) name is ScienceIO and the content for <https://www.science.io> is all under the “space” called **www**.

There are different “environments” in Contentful which can be used by developers to test changes, but the main one which contains the content you see on the live site is called **master**.



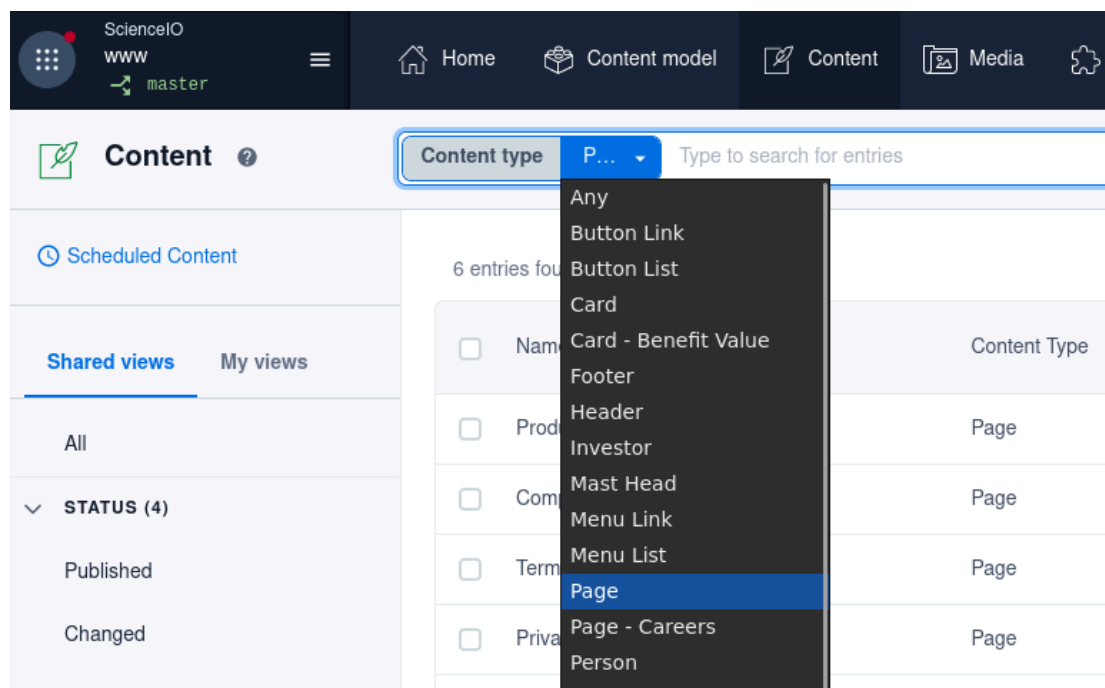
Most of the time we’re working in the **Content** section outlined below:



The **Media** section contains all the icons, photos, videos etc. but these can be uploaded directly when editing content so we rarely visit this section.

Warning: The **Content Model** section must not be used. We define the content model (the shape of different types of content) alongside the code of the site to ensure that it's always in sync. If you want to add a new field (e.g. an image) to a type of content, then the code also needs to be updated to display it. I.e. Please ask a developer to make the change so it can be done safely.

Within the **Content** section you can filter the content by its type:



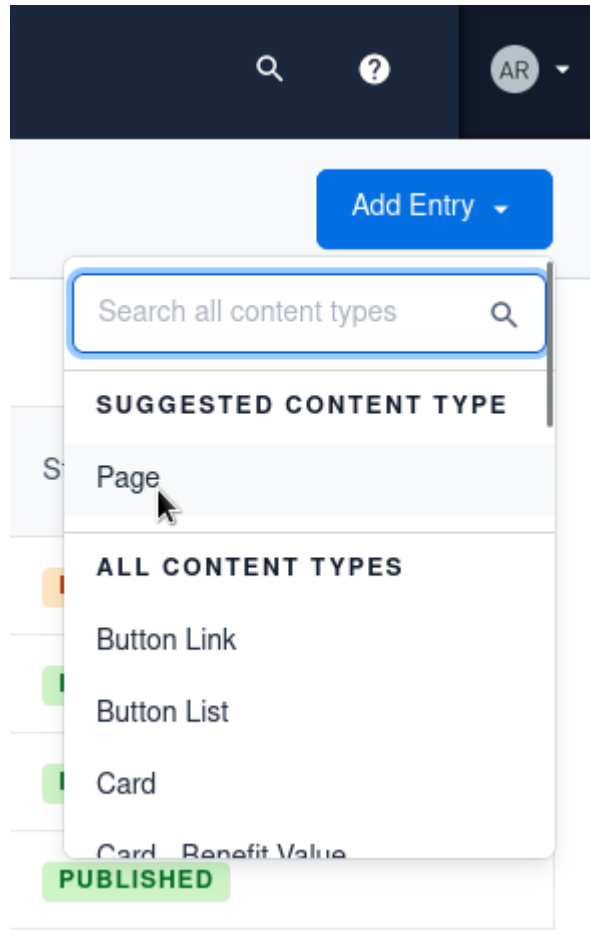
Most of the pages on the site are of the type “Page”. These pages are completely assembled within Contentful and allow adding arbitrary content on new pages.

Some pages include content from elsewhere or have more complex arrangements of content so they have their own types which you also see listed here. For example:

- “Page - Careers” displays live job postings from Lever
- “Page - Resources” displays Resources defined within Contentful but also supports filtering based on tags and pagination.

## Pages: Building a new page

To add a new page to the site, click on **Add Entry** (in the top left) and then **Page** (you may need to filter or scroll down to find Page in the list of types):



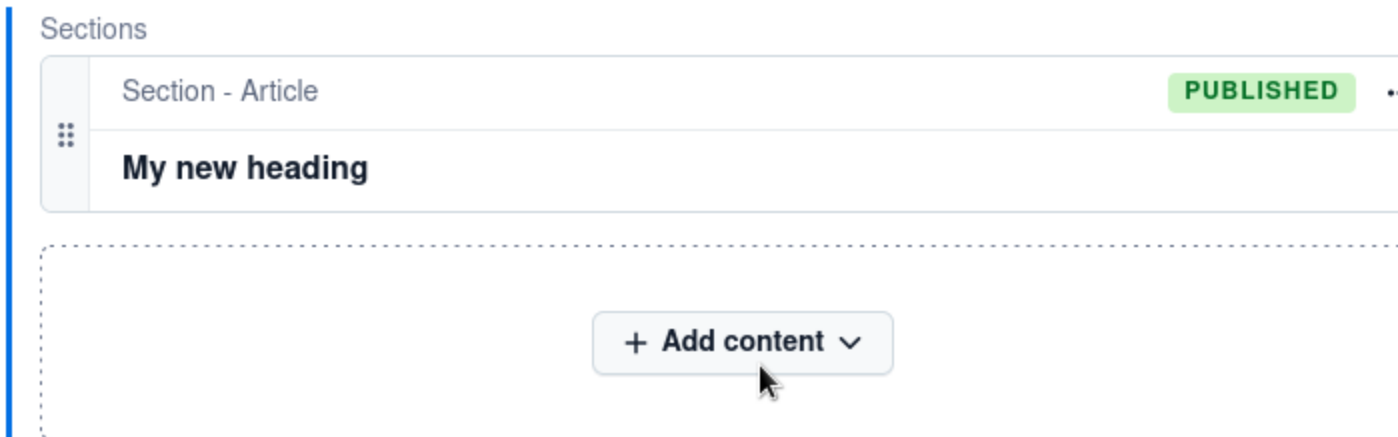
There are only two required fields for a page:

- Title: This appears in the browser UI and also in search results
- Slug: This is the final part of the page's address, e.g. the slug "testing" would make the page appear at <https://www.science.io/testing>.

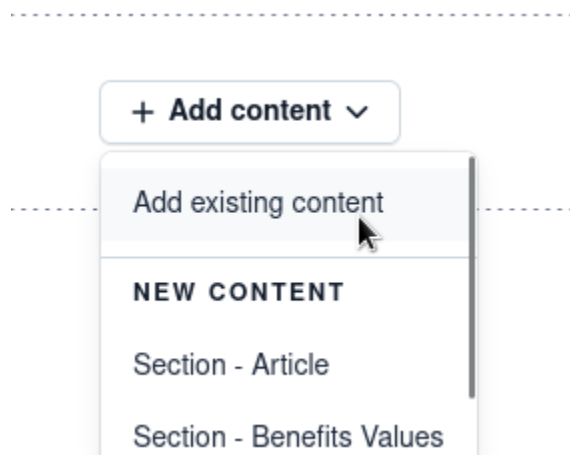
All the actual content of a page is added in the form of Sections, see [Page: Add a section to a page](#) below.

## Pages: Add a section to a page

Click the **Add content** to add a new section.



Here you can choose from existing Sections which are already published, or create a new Section (i.e. write new content) based on one of our section templates.



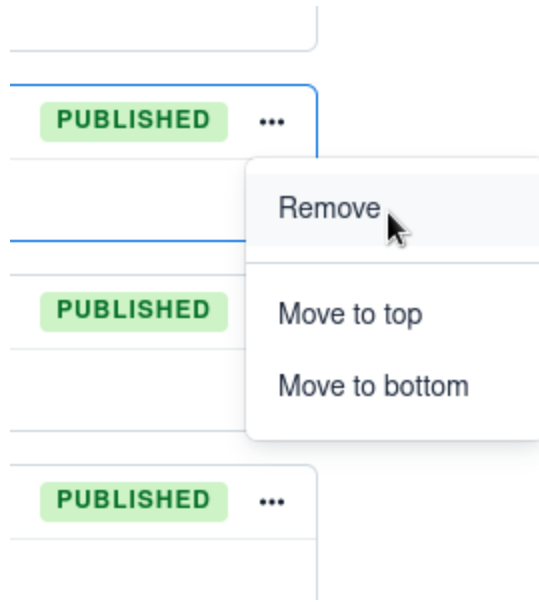
**Add existing content** launches a search box to find content which has already been created, and may be already used in other pages.

Clicking one of the content types under **New content** launches a form to complete that content.

Note: You must click the publish button to the right of a section form for changes to become visible on the site.

## Pages: Hide a section

To remove a section from a page you can click on the three dots in the top right corner and then **Remove**.



Because sections are saved and published individually this won't delete the section entirely, just remove it from this page. You can always restore this section again later by choosing **Add existing content** (explained further above in [Page: Add a section to a page](#)).

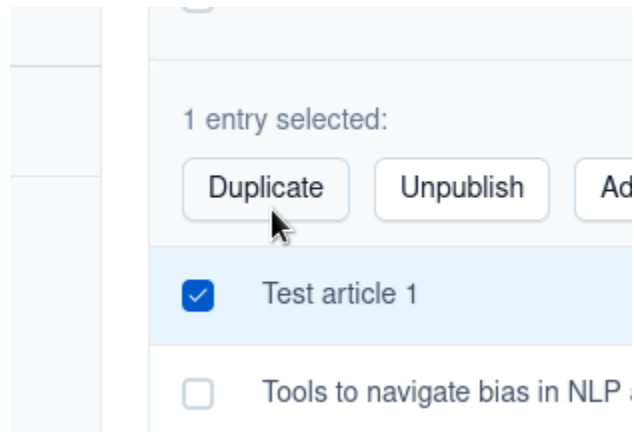
## Pages: Edit a section

To change the content of a section you can either click on it within the form to edit a Page, or you can search for it individually in the content search.

Bear in mind that sections can be used on multiple pages, so you might be changing more than one page at once. You can check where any piece of content is used by hovering over the link icon next to the content name in the top left:



If it's used in more than one page but you want to make a change only on one of the pages, then you'll need to duplicate the section and change the page to use the new section. As well as manually duplicating the content into the new section you can also find the section in the list of content, select it by clicking the checkbox to the left, and then click the Duplicate button:



## Pages: Update some copy on a particular page

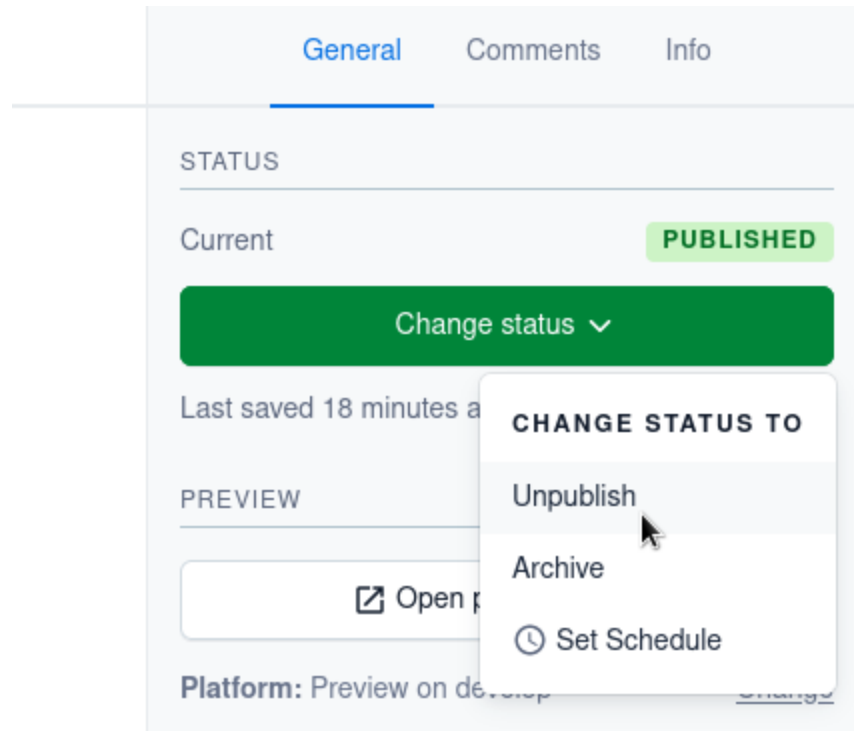
You first need to find which page in Contentful corresponds to the page you're looking at on the site. If it's not listed in the Contentful section of [Important links](#) then it's probably a [generic Page](#).

If the content is within a Section (or some other embedded content, rather than a simple form field) then please read the notes above on [Pages: Edit a section](#) to understand how changes might affect other pages.

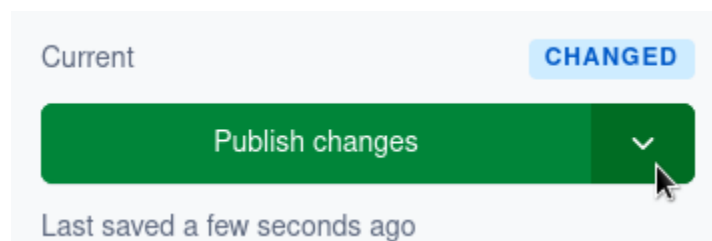
## Pages: Remove a page or other content which has already been published

When editing a piece of content in Contentful there is a large green button to the right of the screen reading **Change status**, or **Publish changes** if some changes have been made since it was published.

You can click anywhere on the **Change status** button:



...or on the arrow to the right of the **Publish changes** button:



In either case you can click on **Unpublish** to remove the content immediately, or **Set Schedule** to schedule this change to happen in the future.

Warning: If you're removing a page which has already been published, you might be breaking a link. It might be better to edit the content of the page to direct people elsewhere, or if necessary a developer can add a redirect so we don't serve a 404 Not Found error on the old URL (hint: `next.config.js`). See also [A certain page is returning a 404 Not Found error](#) in the troubleshooting section.



## Pages: Metadata (title, description, keywords etc.)

All pages have some fields in common to set the metadata used for search engine results, previews when sharing on social media etc.

Once you've found the right page to edit (see [Pages: Update some copy on a particular page](#)) you should see the following fields:

- **Title:** Shown in the browser tab, in search results, and on the resources page.
- **Short page description:** The description of the page shown in search results.
- **Keywords:** Extra keywords used to help search engines understand what's on the page. These should be separated by commas.
- **Page image:** If defined this might be displayed as the preview image in search results or if shared on social media.

## General: Change a link in the mega menu

The mega menu is defined in Contentful as its own content type, the [Header](#).

Each section of the menu can be a Menu List (several links revealed on hover) or a Button Link which goes straight to a page:

Menu (required)		
⋮	Menu List	PUBLISHED
	<b>Products</b>	
⋮	Button Link	PUBLISHED
	<b>Use Cases</b>	
⋮	Menu List	PUBLISHED
	<b>Resources</b>	
⋮	Button Link	PUBLISHED
	<b>Pricing</b>	
⋮	Menu List	PUBLISHED
	<b>Company</b>	

## General: What is a slug?

Any type of content which has its own URL (sometimes even a particular section on a page) uses a **slug** to uniquely identify that content.

A slug will be used in the URL so it shouldn't include any special characters, other than hyphens or underscores. It's best practice to keep it lowercase and as short as possible while remaining unique and descriptive.

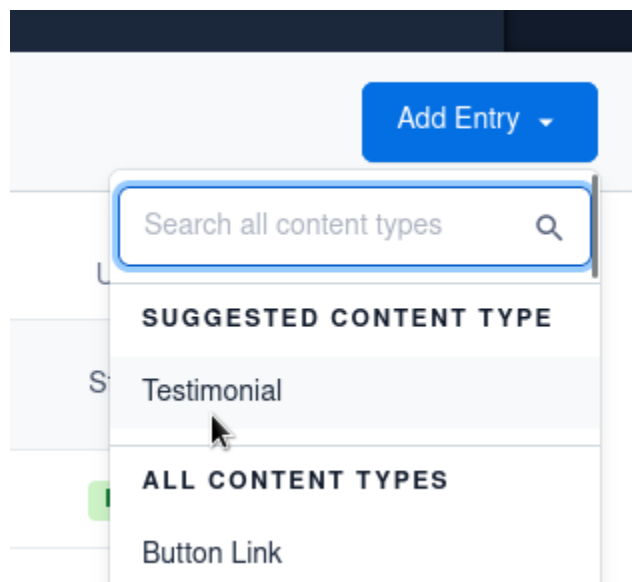
Here are some example page titles with a suggested slug for each one:

Title	Slug
We're releasing an exciting new product: Magic!	releasing-new-product-magic

SciencelO hires “dream team” of HR	hiring-dream-team-hr
Surprising facts about neural network topology	facts-neural-network-topology

## Testimonial: Add a new Testimonial

In the [Content section](#) of Contentful, click on the **Add Entry** button in the top right, and then on **Testimonial** (you can type to filter content types to make it easier to find):



You can now enter the quote and the reference (the source of the quote):

Quote (required)

Something lovely about ScienceIO

33 characters

Reference (required)

A. Kind Person, NASA

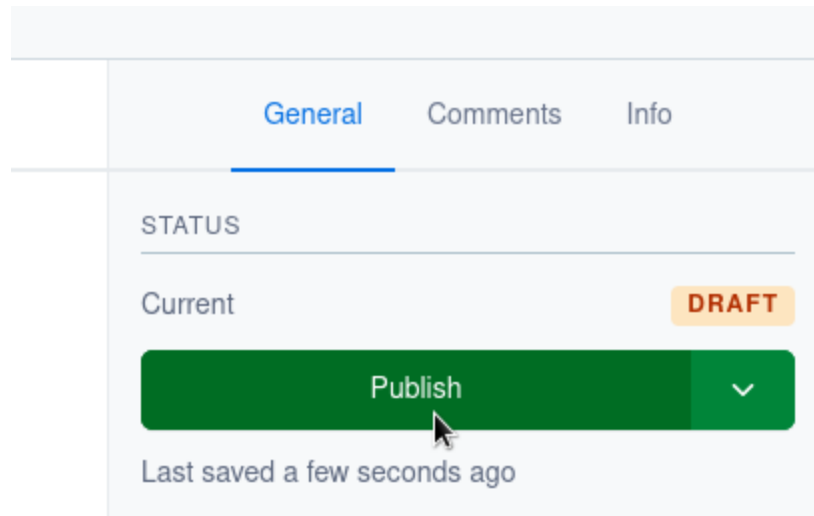
20 characters

Where is quote from

Url

You can optionally enter a logo and a photo for the testimonial. You can see how this looks with and without the various options in the [storybook](#).

When you're happy with the content, click the **Publish** button on the right and you should shortly see the new testimonial on the site:

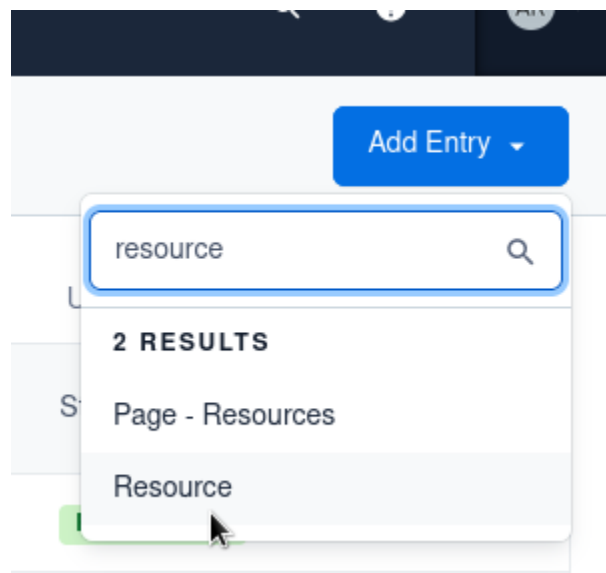


## Resources: Add an article / blog post / resource on the site

The resources section contains two types of resources:

- Those with a rich text section and therefore their own page on the site to see the whole content (e.g. a blog post, case study etc.): Keep reading for how to add one of these.
- Those which link elsewhere: See [Resources: Add an external resource](#).

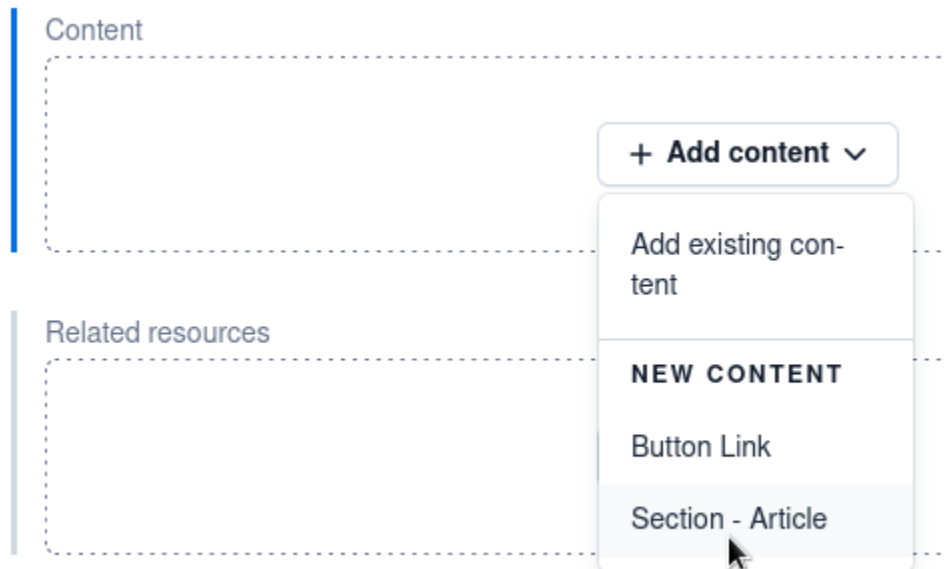
In the [Content section](#) of Contentful, click on the **Add Entry** button in the top right, and then on **Resource** (you can type to filter content types to make it easier to find):



You will then get a form where you can start to define the article. First of all you enter the “metadata”:

- **Title:** Shown in the browser tab, in search results, and on the resources page.
- **Slug:** See [General: What is a slug?](#)
- **Short page description:** The description of the page shown in search results.
- **Keywords:** Extra keywords used to help search engines understand what's on the page. These should be separated by commas.
- **Page image:** If defined this might be displayed as the preview image in search results or if shared on social media.
- **Date:** Displayed on the article and also used to decide the order of resources on the resources page - the newest are shown first.
- **Author:** If defined, show the image and name of the author on the resource page.

In this case where the resource will have its own page on the site powered by a rich text (article) section, for the **Content** field click the **Section - Article** link under **New Content**.



Now you can fill out the actual article content:

---

Heading (required)

My interesting article heading

30 characters

Slug (required)

 my-interesting-article-heading

*This is the slug for the section, it will be used for the URL anchor*

Subheading

Optional article subheading

27 characters

Article (required)

Heading 1 ▾

**B**

*I*

U

<>



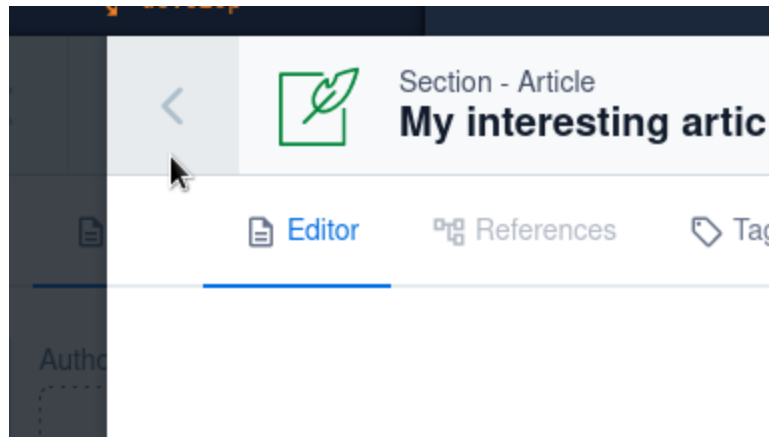




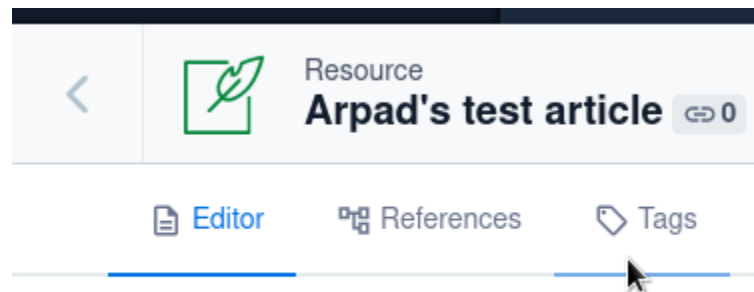


**Rich** text *article* content!

When you're done editing the article content click the **Publish** button on the right, and then the **left arrow** on the left to return to the Resource:



There's one final step for this Resource to allow it to be filtered in the right section on the Resources page. Click on **Tags** in the top menu:



Select the appropriate tag beginning with "Resource: ":



Tags

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### Tags

icon PUBLIC

Resource: API Documentation PUBLIC

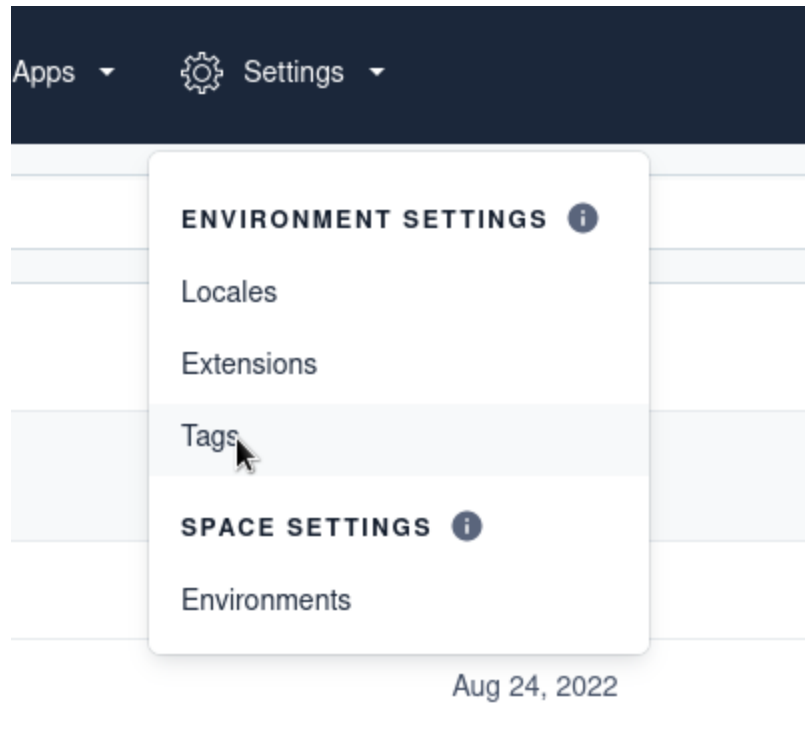
Resource: Article PUBLIC

Resource: Case Study PUBLIC

Now you can **Publish** the resource and it should shortly appear on the Resources page.

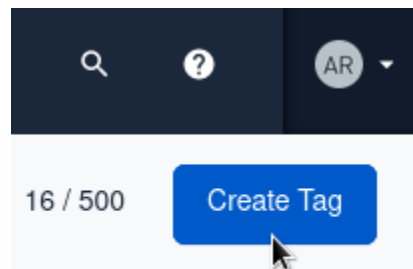
## Resources: Add a new content type

The “content types” which appear at the top of the Resources page and allow filtering, are powered by Tags in Contentful. To add a new Tag, click on **Settings** in the top menu and then **Tags** under Environment Settings:

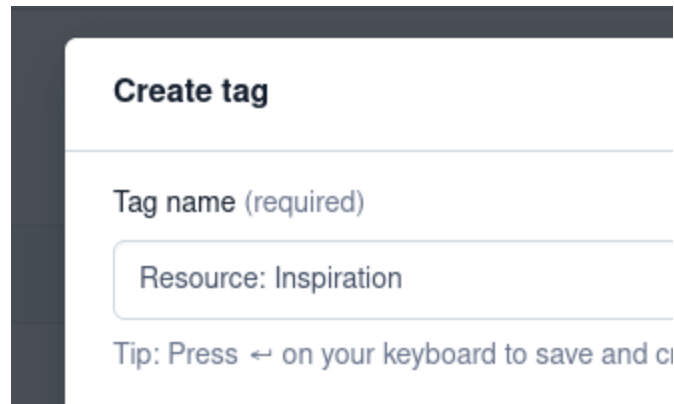


You'll see a list of all the Tags in use across the site. Those used in resources have the prefix "Resource: ", and those used in use cases have the prefix "Use case: ".

To add a new Tag, click the **Create Tag** button in the top right corner.



As mentioned above the new Tag must have the prefix "Resource: " to appear on the resources page:



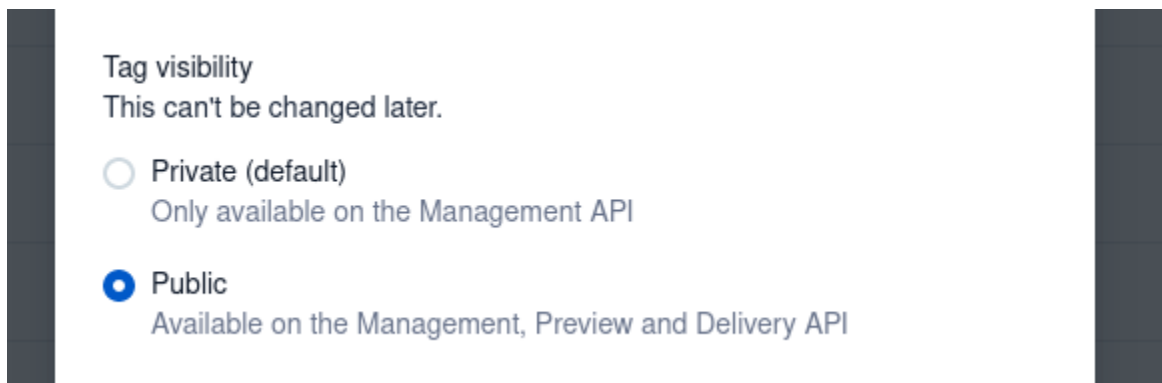
**Create tag**

Tag name (required)

Resource: Inspiration

Tip: Press ↵ on your keyboard to save and c

It's also crucial that the Tag is set to **Public**, otherwise it will only be visible to other users of the CMS and not on the frontend of the site. If you accidentally create a tag set to Private, you'll need to delete it and recreate as Public since it's not possible to modify this afterwards:



Tag visibility  
This can't be changed later.

☐ Private (default)  
Only available on the Management API

☒ Public  
Available on the Management, Preview and Delivery API

The Tag ID which is automatically generated based on the name should be left alone. The frontend relies on this ID and it needs to be safe to use as a URL parameter, so it's best to leave the generated value.

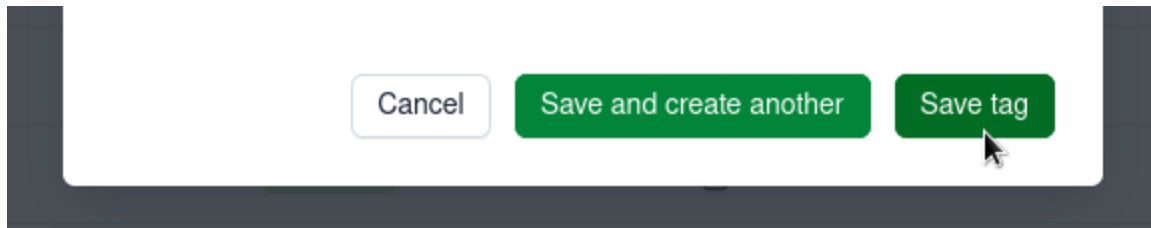


Tag ID (required)

resourceInspiration

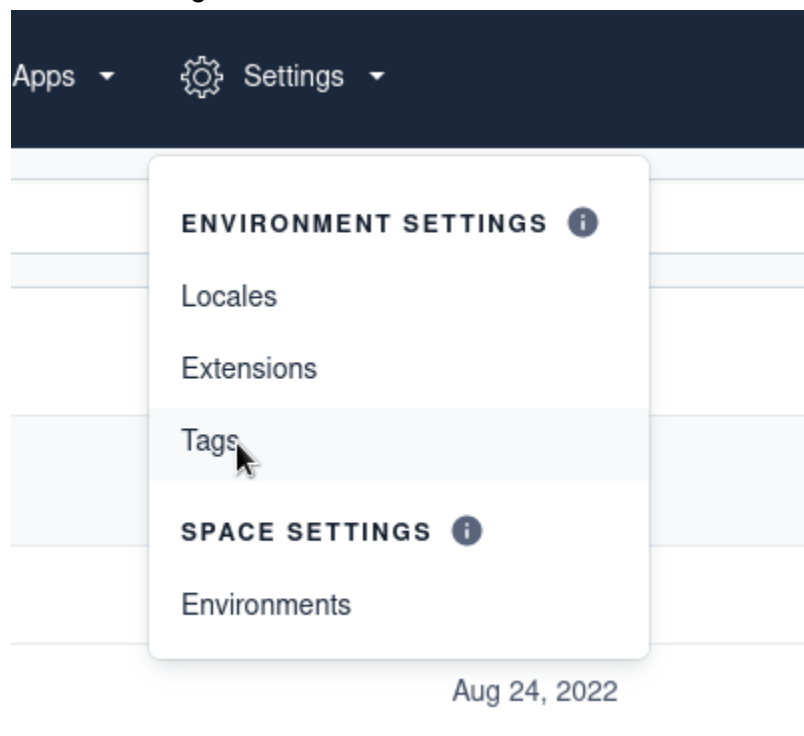
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Finally click the **Save tag** button, and you can now start applying the tag to content.



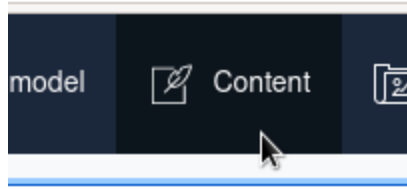
## Resources: Rename a content type

The “content types” which appear at the top of the Resources page and allow filtering, are powered by Tags in Contentful. To manage Tags, click on Settings in the top menu and then Tags under Environment Settings:

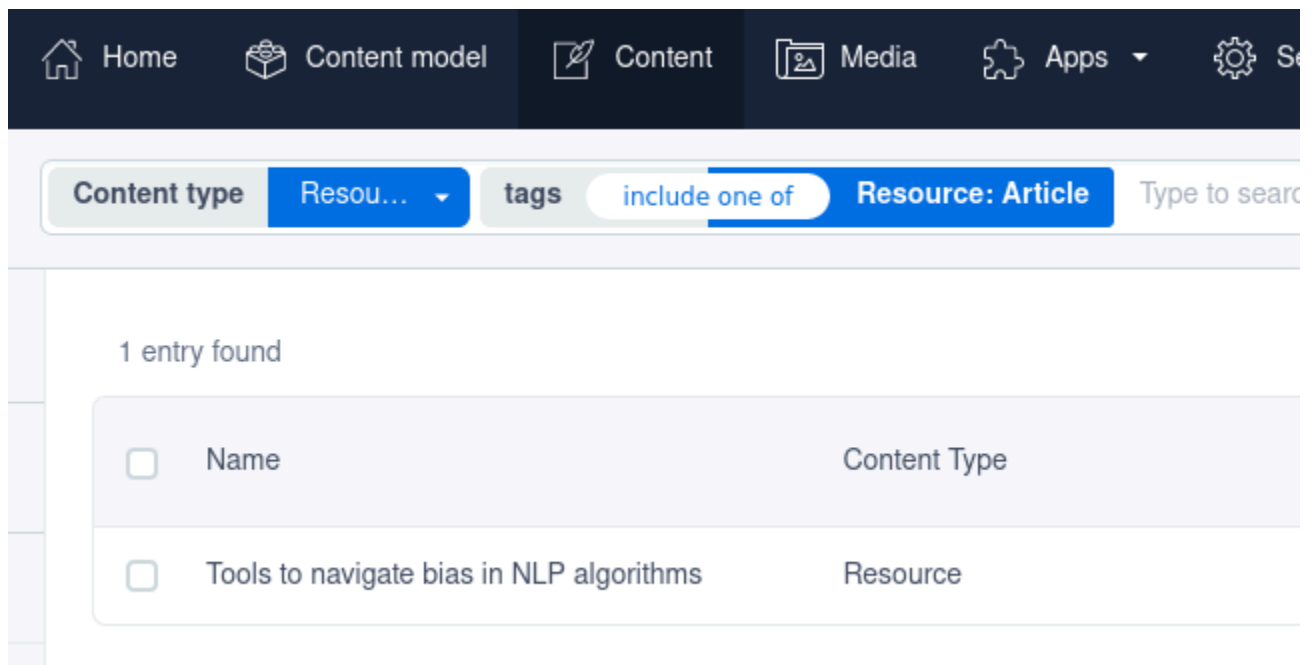


While Contentful does offer the ability to rename a tag - click the three dots on the right of each row and you'll see the options to rename or delete the tag - it's strongly recommended not to use this functionality as it will result in a mismatch between the label of the tag and the text visible in the URL.

Instead it's best to delete the tag and create a new one, reassociating any linked content. To find resources using the tag to be renamed, go to **Content** in the top menu:

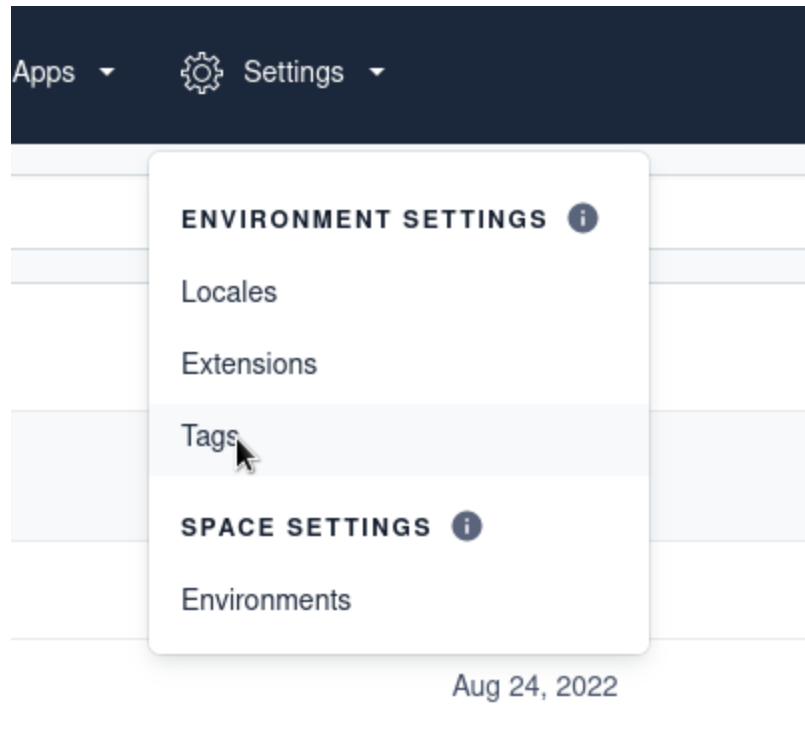


In the search bar at the top of the page, change the **Content Type** to Resource and type “tags”. If you click on the gray “tags” pill in the suggestion box then this will add a filter to the search bar where you can specify tags to filter by:

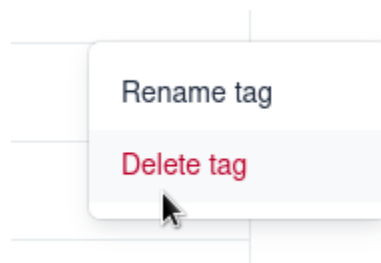


You should now see listed all content using this tag, which you'll need to associate with the new tag once it's created.

To delete the old Tag, click on **Settings** in the top menu and then **Tags** under Environment Settings:



Find the tag you want to rename and click the three dots to the right of the row, and then **Delete tag**:



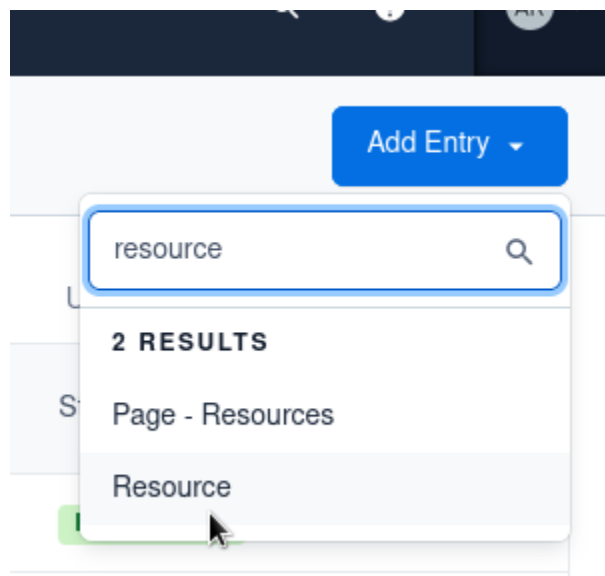
Now follow the process in [Resources: Add a new content type](#) to add the new tag, before associating the content with the new tag.

## Resources: Add an external resource

The resources section contains two types of resources:

- Those with a rich text section and therefore their own page on the site to see the whole content (e.g. a blog post, case study etc.): See [Resources: Add an article / blog post / resource on the site](#).
- Those which link elsewhere: Carry on reading.

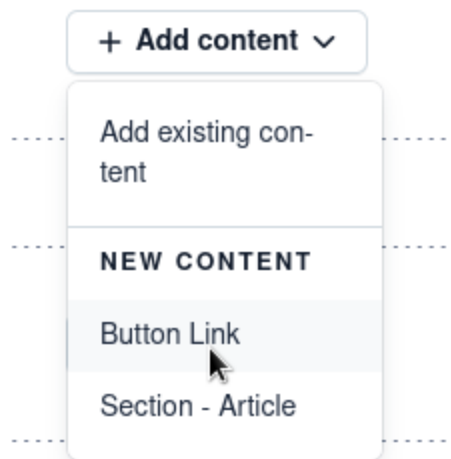
In the [Content section](#) of Contentful, click on the **Add Entry** button in the top right, and then on **Resource** (you can type to filter content types to make it easier to find):



You will then get a form where you can start to define the article. First of all you enter the “metadata”:

- **Title:** Shown in the browser tab, in search results, and on the resources page.
- **Slug:** See [General: What is a slug?](#)
- **Short page description:** The description of the page shown in search results.
- **Keywords:** Extra keywords used to help search engines understand what’s on the page. These should be separated by commas.
- **Page image:** If defined this might be displayed as the preview image in search results or if shared on social media.
- **Date:** Displayed on the article and also used to decide the order of resources on the resources page - the newest are shown first.

In this case where the resource will link elsewhere, potentially to a different site, for the **Content** field click the **Button Link** link under **New Content**:



You can enter the URL and the text for the label on the button:

A form for adding a button link. It has three sections. The first section is titled 'Label (required)' and contains a text input field with the value 'Read Case Study' and a character count of '15 characters'. The second section is titled 'Url (required)' and contains a text input field with the value 'https://www.thelancet.com/..' and a character count of '29 characters'. The third section is titled 'External' and contains two radio buttons: 'Yes' (which is selected) and 'No', followed by a 'Clear' link.

If **External** is set to Yes, this link will open a new tab/window rather than taking over the current browser tab. This is best if linking to an external site, so the ScienceIO site remains in the current tab for when the visitor has finished reading the external resource.

## Use cases: Add a new filter

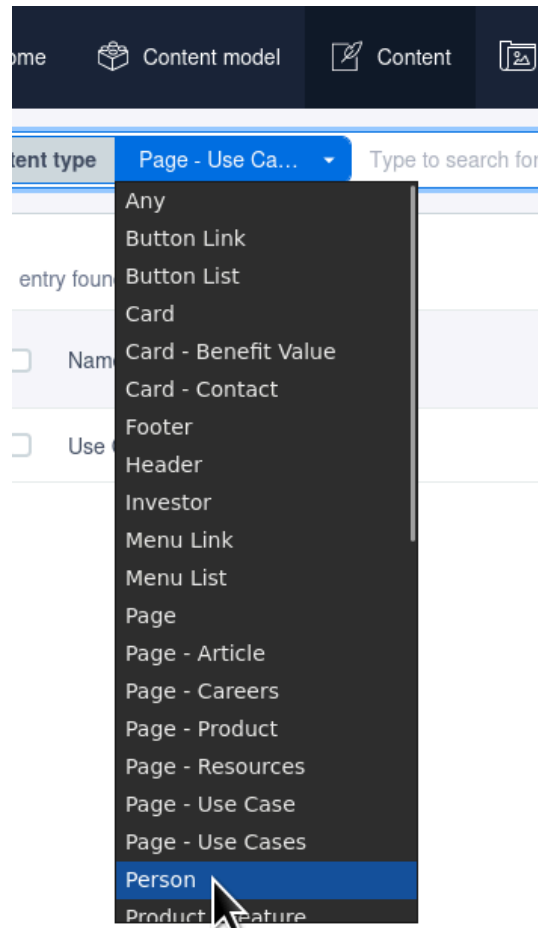
The filters which appear at the top of the Use Cases page, are powered by Tags in Contentful. These are all Tags with the prefix “Use case: “.



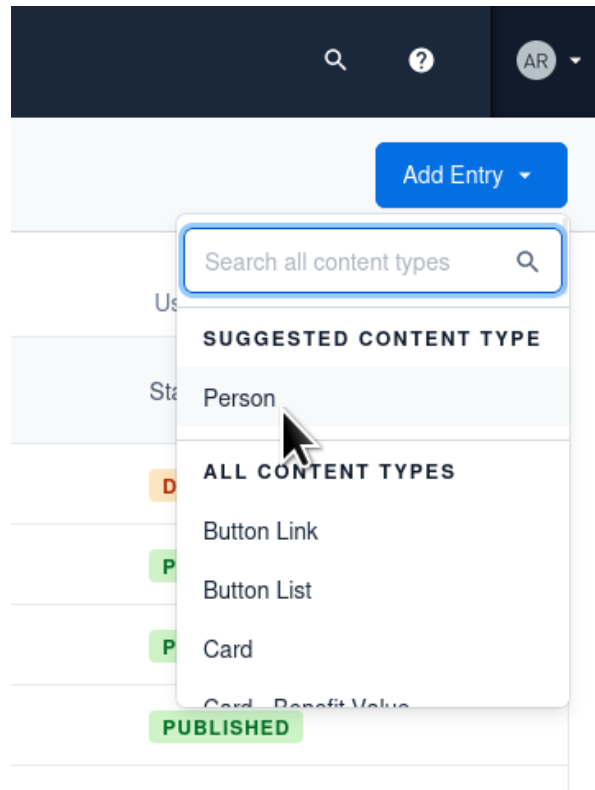
See [Resources: Add a new content type](#) to add a new Tag, except for the Use cases filters use the prefix “Use case”.

## Team: Add a new team member

In the **Content** section, change the “Content type” filter to Person:



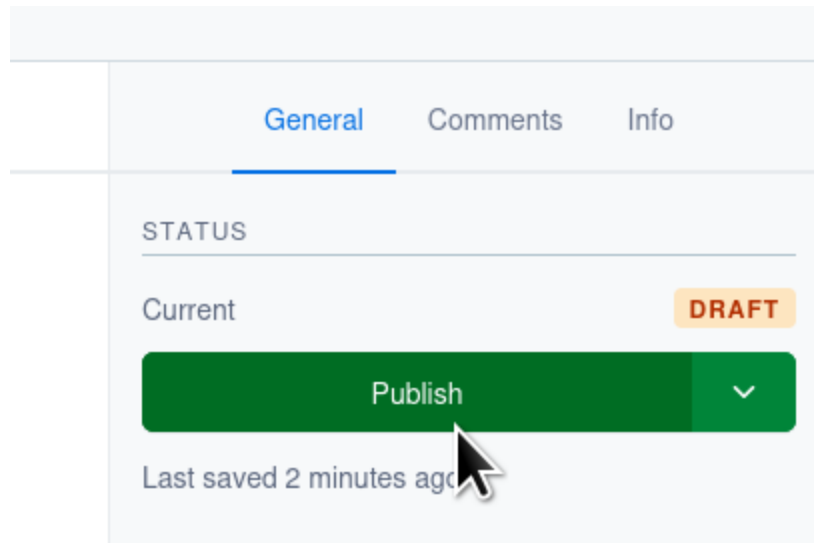
This will list all the existing team members. Now click on the **Add Entry** button in the top right corner and **Person** in the drop down which appears:



You should now see the form to enter the team member's details:

- Name: Full name
- Title: Job title
- Photo: The headshot which appears on the company page and on the byline of resources they're credited with. See [Team: Update a team member's photo](#) below.
- Bio: Currently unused
- Pronouns: Currently unused

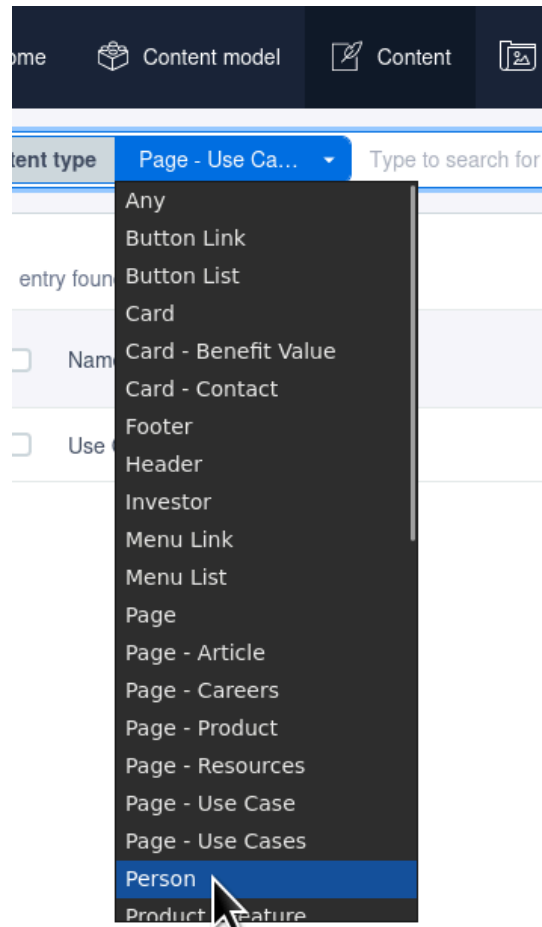
Finally click on **Publish** to make this changes live:



## Team: Update a team member's photo

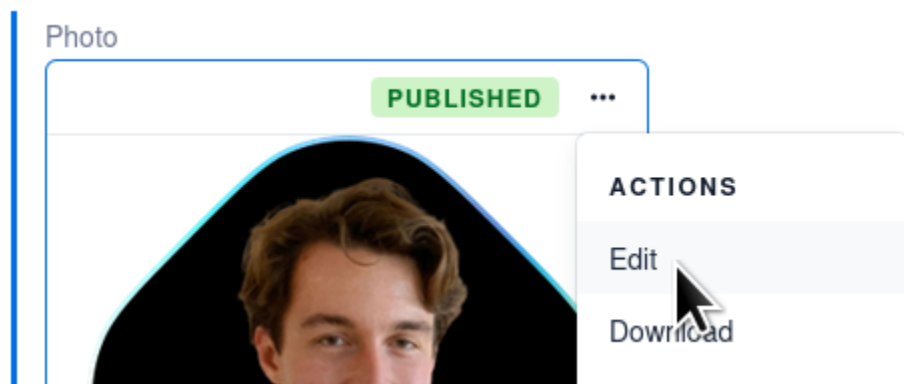
First the new photo needs to be prepared using the Photoshop template to standardize the headshot and add the holofoil border.

Now to edit the team member: In the **Content** section, change the "Content type" filter to Person:

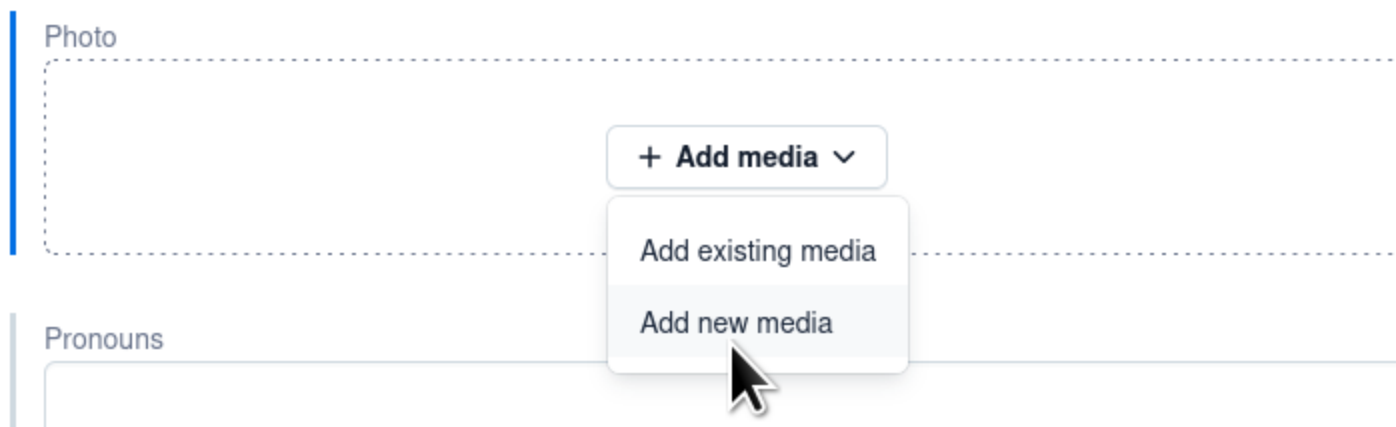


You can now use the search box or page through the team members until you find the right one. Click on the row to edit this person.

If there's already a photo, then click the three dots on its top right and then **Edit**:

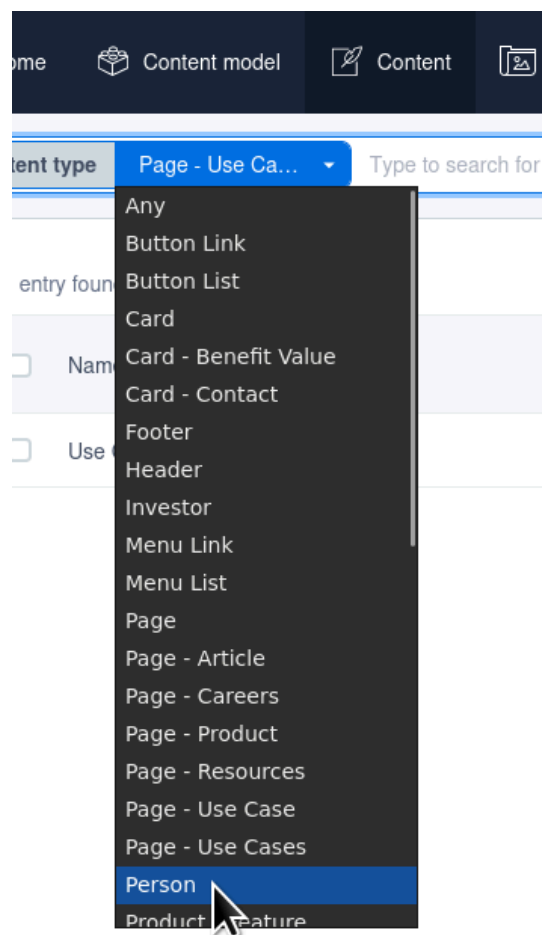


Or if a photo hasn't yet been uploaded, click **Add media** and then **Add new media**:



## Team: Remove a team member

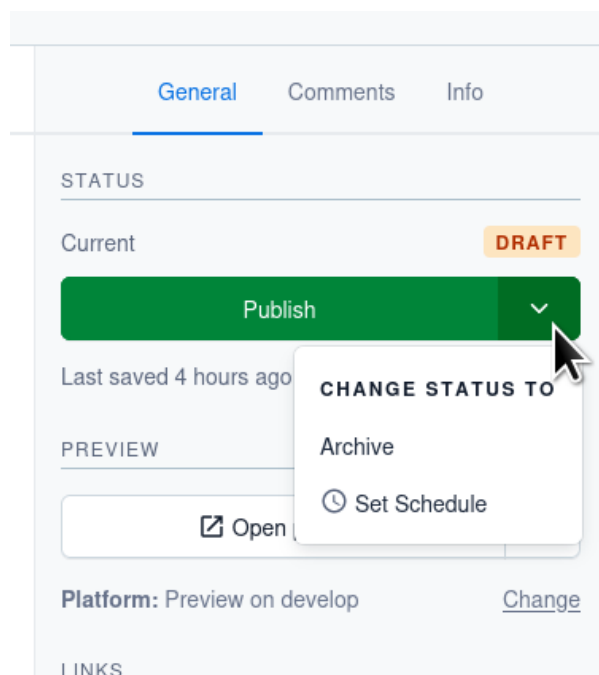
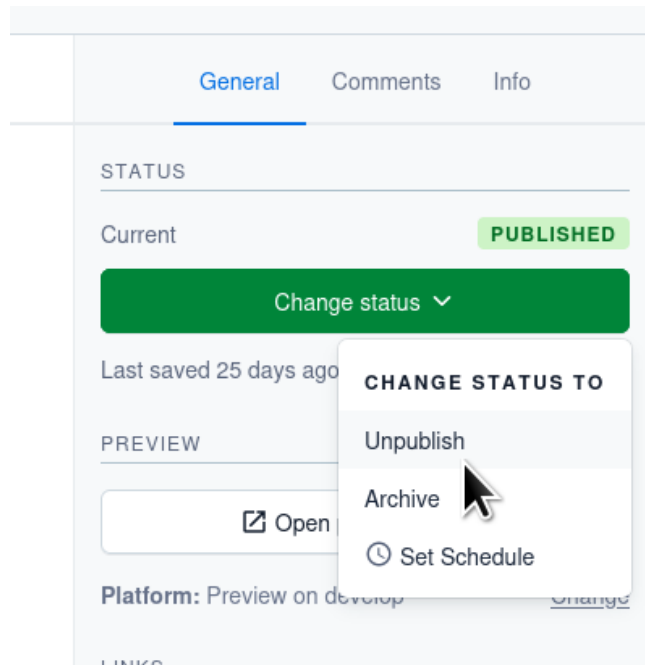
Now to find the team member to remove: In the **Content** section, change the “Content type” filter to Person:



You can now use the search box or page through the team members until you find the right one. Click on the row to edit this person.

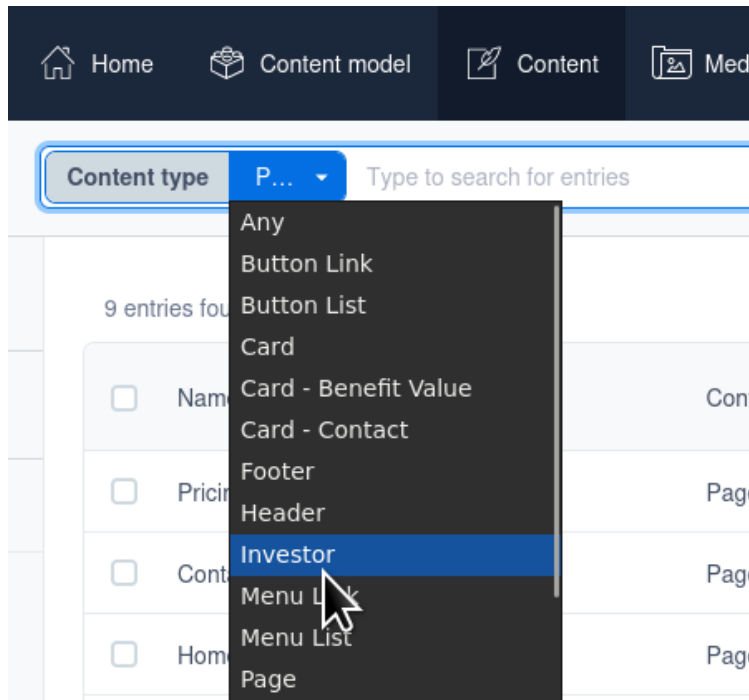
If this team member has already been published then the green button on the right reads **Change Status**, click it and then either **Unpublish** to remove this team member temporarily or **Archive** to permanently remove them.

If the team member hasn't yet been published then click on the arrow next to the **Publish** button to reveal **Archive**.



## Investors: Add an investor

In the **Content** section, change the “Content type” filter to Investor:



This will list all the investors which are currently featured. Now click on the **Add Entry** button in the top right corner and **Investor** in the drop down which appears:

## Investors: Remove an investor

See [Team: Remove a team member](#) (except select the content type Investor instead of Person).

## Careers: Add a job posting on the careers page

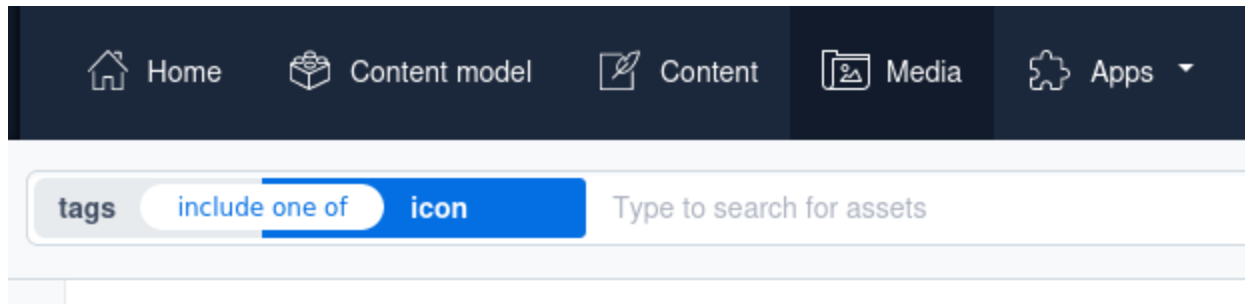
Job postings on the careers page are managed on [Lever.co](#).

## Pricing: Update price / description / features

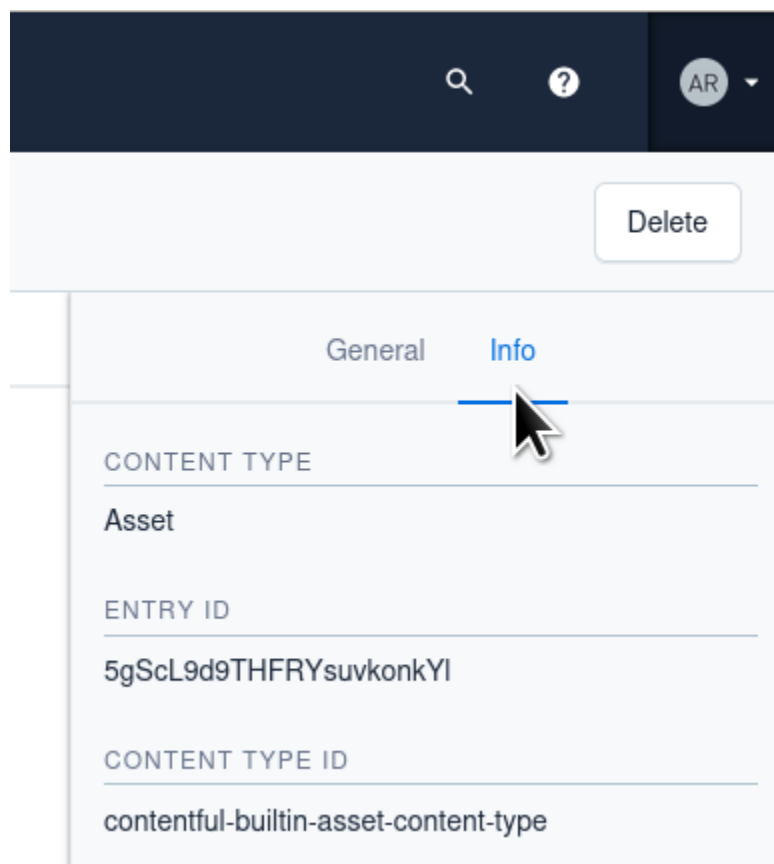
Pricing information for the plans is retrieved from Stripe via the SciencelO Plans API. Any changes to the displayed information can be made [on Stripe](#).

The icon ID corresponds to an Asset ID in Contentful, to find icons go to the **Media** section in the top navigation bar and you can then filter those with the tag "icon" ([direct link](#)):





If you click one of the rows in the results, then you can find the ID to use in the **Info** tab on the right, in the **Entry ID** field.



## Advanced: Add a new *type* of section

Adding a new type of section (i.e. a reusable section which isn't among the current ones) is a change requiring a developer to:

- Build the new component which defines how the section is rendered.

- Define a new content type corresponding to this new component in a migration.
- Update existing content types which support sections to allow this new one (in another migration).
- Update GraphQL queries on types supporting sections.
- Update components supporting sections to render the new component if present.

## Advanced: Add a new field to a form

The contact form and product wait list form are not managed in Contentful. Adding (or changing) fields in these forms requires a developer to:

- Update Zapier endpoint which receives the submission
- Update our submit API which handles server-side validation and posts to Zapier
- Update the frontend form component
- Update tests broken by the changes

## Troubleshooting

### The site is inaccessible

First of all verify that it's the site itself which is inaccessible and not a broader problem with your internet connection. For example:

- Try from a different network (e.g. your smartphone with Wifi turned off)
- Ask someone else in a different location if they can access it

Having verified that it's not your own connection causing the issue, check the service status in the [Important links](#) at the top of this manual. Problems with Netlify DNS, Vercel and Contentful are the most likely to cause issues to the site as a whole.

If there is a relevant incident logged on one of those service status pages:

- **Netlify DNS:** There's not much one can do other than wait. If it's a long-term outage then you can transfer the DNS nameservers for the science.io domain to a different provider, but this takes on the order of days rather than hours.
- **Vercel or Contentful:** It might be best to update the DNS record for [www.science.io](http://www.science.io) to point to a static error page on S3 ([enhancement #376](#))

If there is no relevant incident then it may be a problem specific to the site.

Check that the DNS is resolving:

```
$ nslookup www.science.io
```

If there's no answer or the answer appears to be invalid then [file a ticket with Netlify](#).

Check the [Vercel Dashboard](#) - if there's a problem with the production deployment you can try creating a new deployment by pushing to the master branch on GitHub.

Otherwise [file a ticket with Vercel](#) or [Contentful](#) as appropriate.

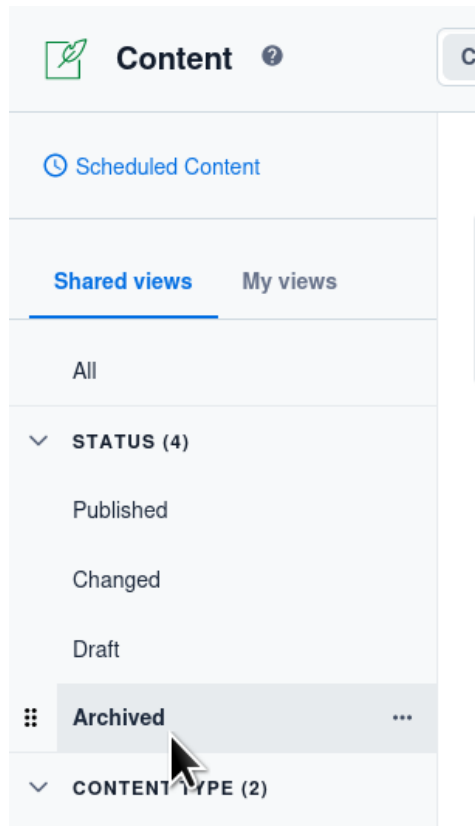
## A certain page is returning a 404 Not Found error

First of all you need to establish which content corresponds to the URL where the error is occurring:

- /products/[slug] - [Page - Product](#)
- /resource/[slug] - [Resource](#)
- /use-case/[slug] - [Page - Use Case](#)
- /[slug] - [Page](#)

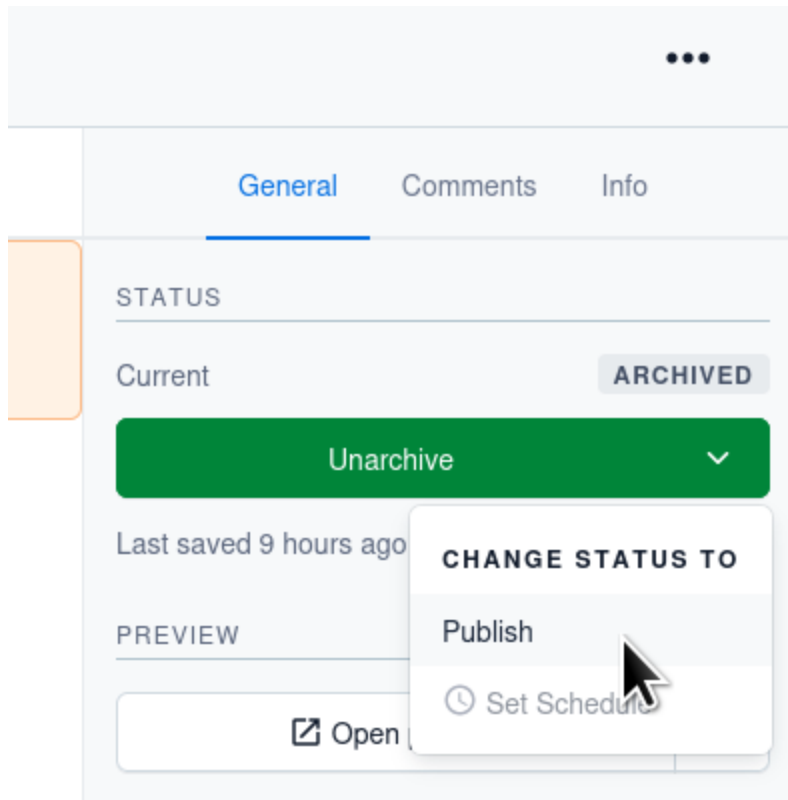
If it's not one of these patterns then it's possible that the URL is incorrect (for example has some extra characters) or that the site has a bug. Ask a developer for help or [create an issue](#).

The entry corresponding to the [slug] portion of the URL path may have been unpublished or archived. Archived entries aren't included in the list by default, click on **Archived** in the status filter on the left to see them:



Click on the entry to access the screen where it can be republished.

To publish an entry which has been archived you can first unarchive it, or publish directly using the arrow to the right of the Unarchive button:

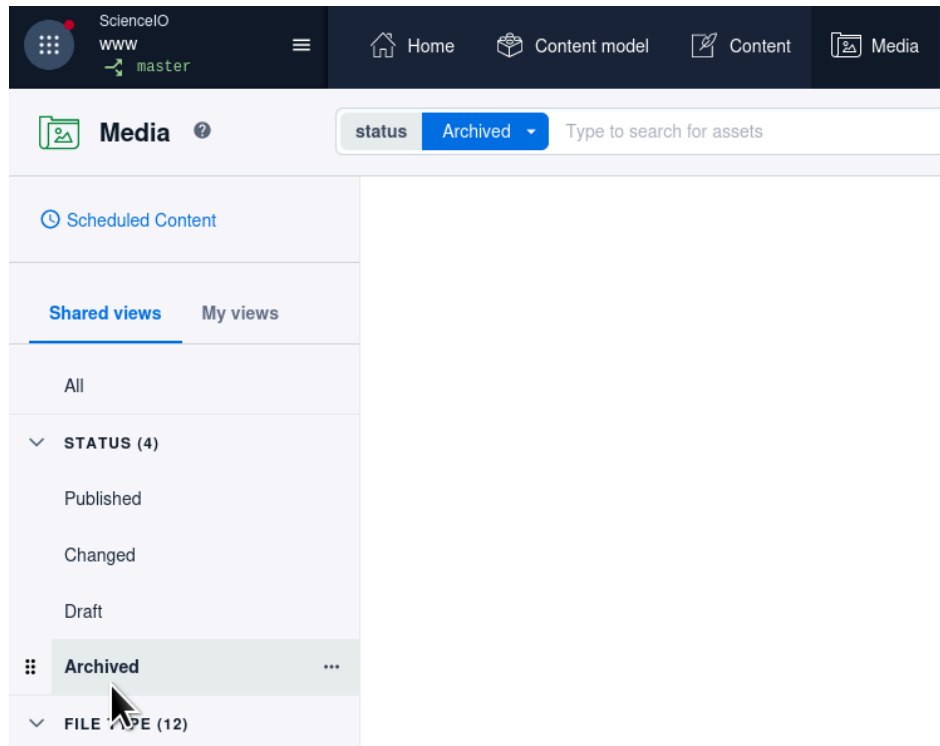


If you can't find or don't want to republish an entry which is causing a 404 error, ask a developer to add a redirection rule in `next.config.js` - this requires a code change and redeployment of the site so should be done with moderation.

## There is a broken image

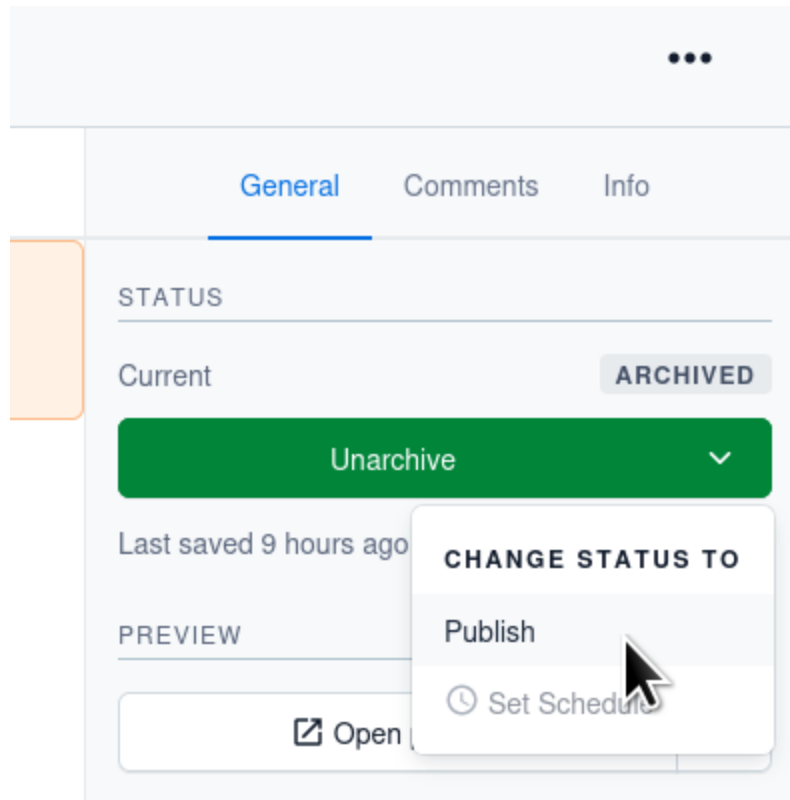
The most likely cause of broken images is that an Asset in Contentful has been archived while in use by published entries.

To view archived assets go to the **Media** section in the top toolbar and then click on **Archived** in the status filter on the left:



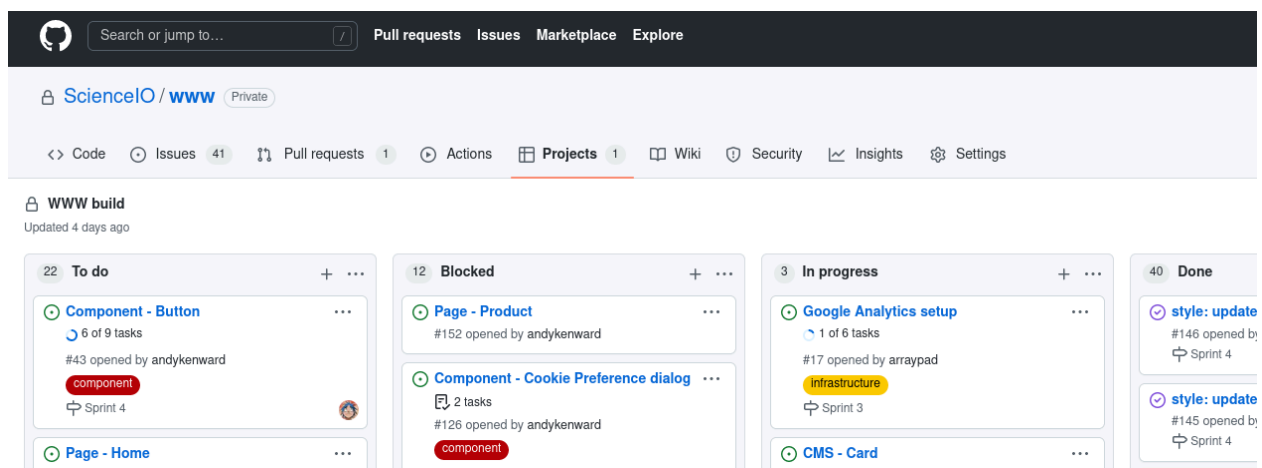
Click on the asset to access the screen where it can be republished.

To publish an asset which has been archived you can first unarchive it, or publish directly using the arrow to the right of the Unarchive button:

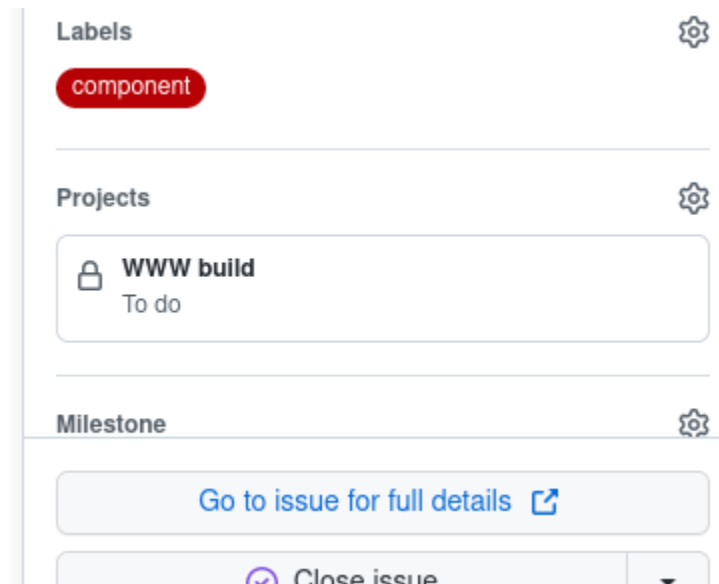


## Reporting and tracking issues

We use GitHub Issues to track bugs. The [project view](#) shows a column for each status, with new issues starting in the “New” column on the far left:



This view includes simple notes and issues, but generally we only use issues as these have more space for discussion, labels etc. Clicking on the title of an issue opens a panel on the right, which displays a quick summary and includes a button to go to the full issue:



## Creating an issue

Go to the new issue page: <https://github.com/SciencelO/www/issues/new/choose>

Click the “Get started” button to create a bug report:

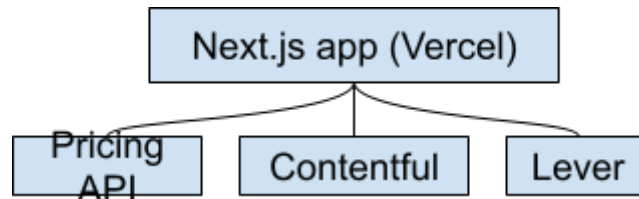


Don't see your issue here? [Open a blank issue.](#)

Now you can enter a title and fill out the bug report template with as much information as possible.



# Technical architecture and development workflow



**TL;DR:** The site is a TypeScript app based on the Next.js framework on Vercel. The primary source of content is Contentful. Job postings are populated from Lever. Product data is retrieved from the science.io pricing API which itself pulls from Stripe.

## App architecture

The full technical stack of the site is written in TypeScript using the Next.js framework.

The frontend of the app is composed of React components - both logical content blocks from the design and reusable functional components. [Storybook](#) is used to provide a catalog of components which can be tested independently of the app.

Very little content (e.g. copy, photos) lives in the app code itself. The majority of the content is retrieved from the Contentful headless CMS. We have content types in the CMS to represent everything from whole pages to individual components, empowering editorial users to make both trivial and significant changes without engineering involvement.

There are two other dynamic sources of content:

- Lever: The careers page which lists job postings and individual job posting pages are generated using Lever's Postings API.
- Stripe: The all content on the pricing page (e.g. tiers, their prices and features) is managed on Stripe and served to the site via the billing API.

We use Incremental Static Regeneration (ISR) to generate and serve this content as static pages, while regularly revalidating to ensure freshness without requiring redeployment.

## Contentful

There are two primary “environments” in Contentful corresponding to the primary branches in Git. In addition to these, sandbox environments are automatically created for Pull Requests containing

migrations so they can be tested in isolation from the other environments. There is currently a Contentful limit of 4 environments for the space, so we can only have two PRs with migrations open at a time.

Git branch	Contentful environment
master	master
develop	develop
feature/XYZ	123_merge

Each Contentful environment has a preview URL corresponding to the Vercel deployment target for that branch, so content changes can also be tested alongside application changes.

**Warning:** The develop environment on Contentful is frequently re-created from the master environment to ensure that the content doesn't diverge too much, so content changes made on develop may be lost.

## Development guide

Please refer to the [development guide](#) for information aimed at developers making changes to the code of the site. This is kept in Git to facilitate cross-references with issues and pull requests.