



# The State of Drupal 9

presented by Amber Himes Matz  
@amberhimesmatz

Most slides by @gaborhojtsy at @acquia  
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# Hello!

I'm **Amber Himes Matz**

I know a few things about  
Drupal 9 and want to share  
them with you.

On Twitter:  
**@amberhimesmatz**

**#D4G**







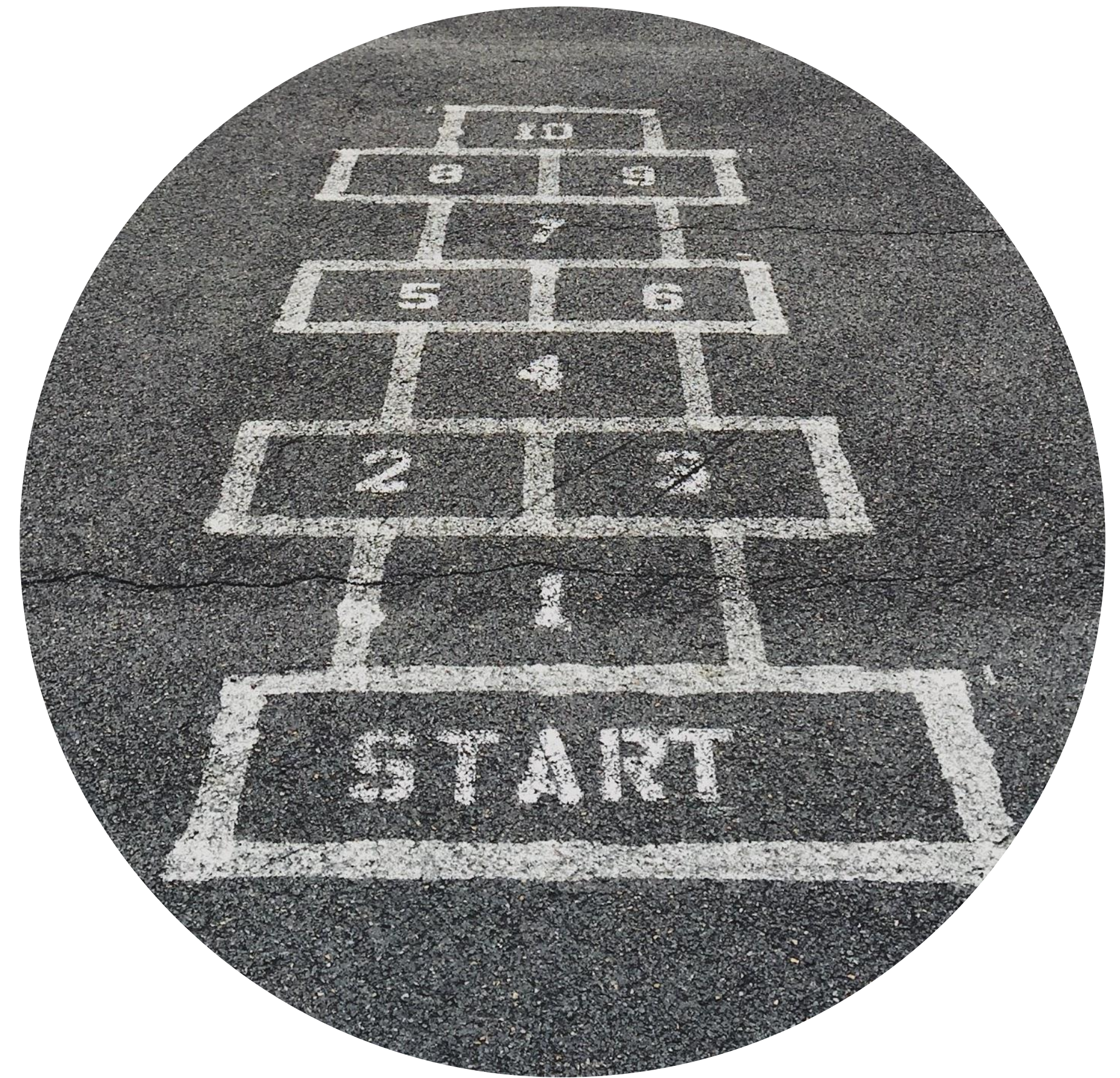
# INNOVATION IN DRUPAL

1



# Semantic versioning

Drupal started using it from Drupal 8.0.0. Allows to release feature updates in minor releases (8.1, 8.2, etc.) with backward compatibility.





# Scheduled releases

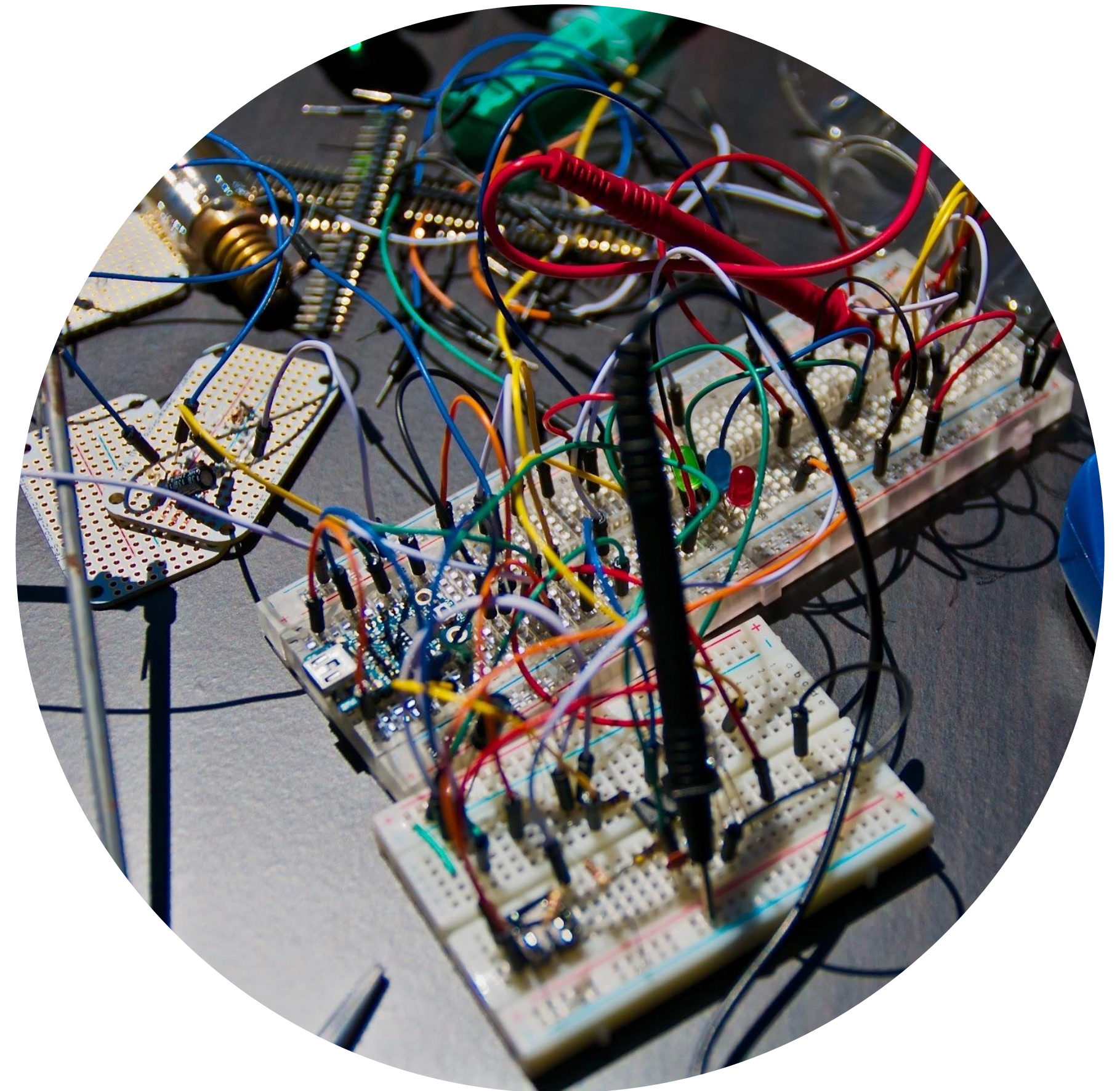
Minor releases every six months make versions predictable. New features come at a regular pace.





# Experimental modules

When features need more time and feedback to be finalized, they are added as experimental modules. Backward compatibility is still supported.





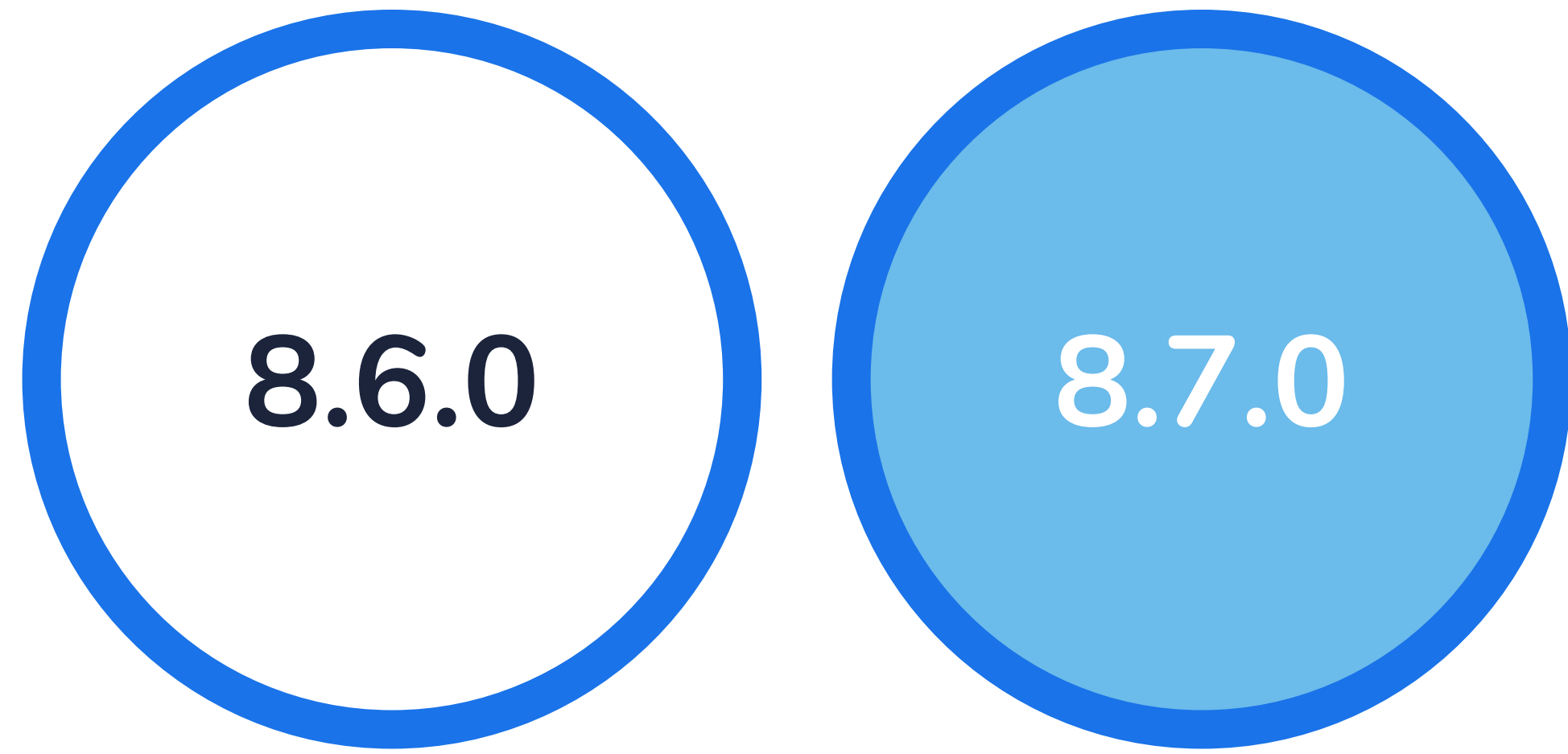


8.6.0

**Experimental:** Media Library, Workspaces

**Stable:** Demo, Monolingual migrations





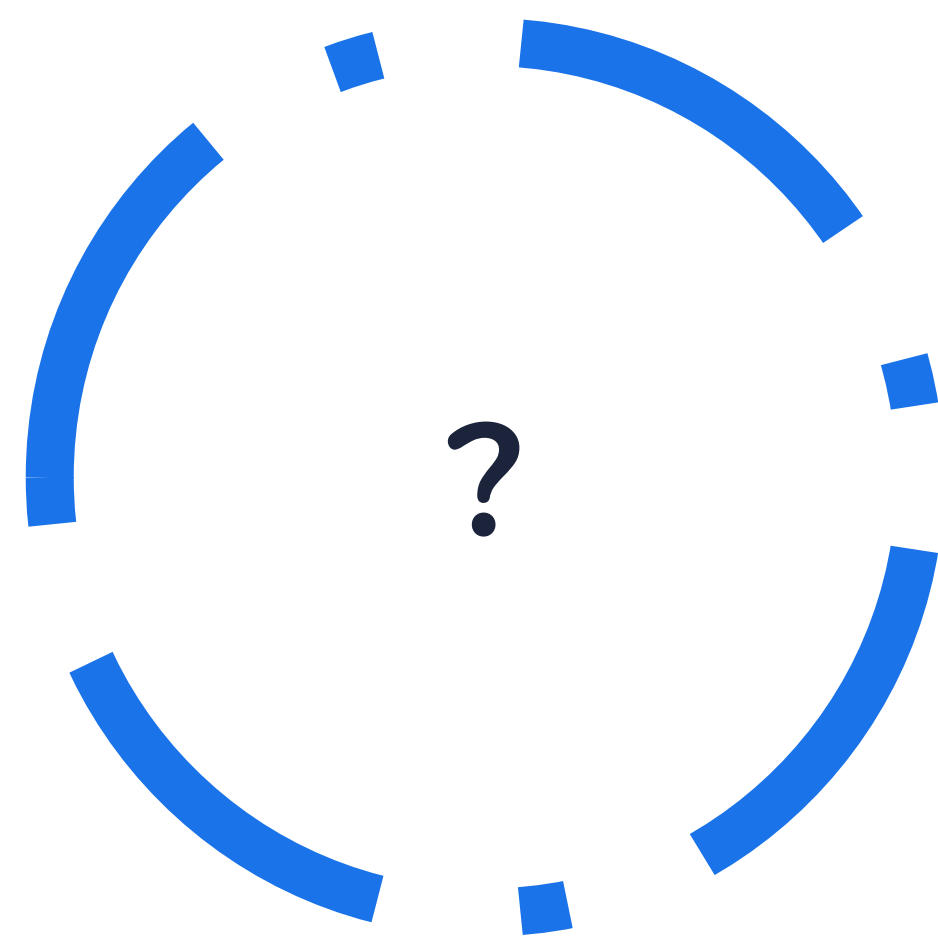
**Experimental:** Hugely improved Media Library

**Stable:** Layout Builder, JSON:API

**Third party:** Optional Twig 2 support\*











WHY  
DRUPAL 9?

2



1

Clean up  
our own  
codebase

2

Update  
third party  
dependencies



# Third-Party Dependencies

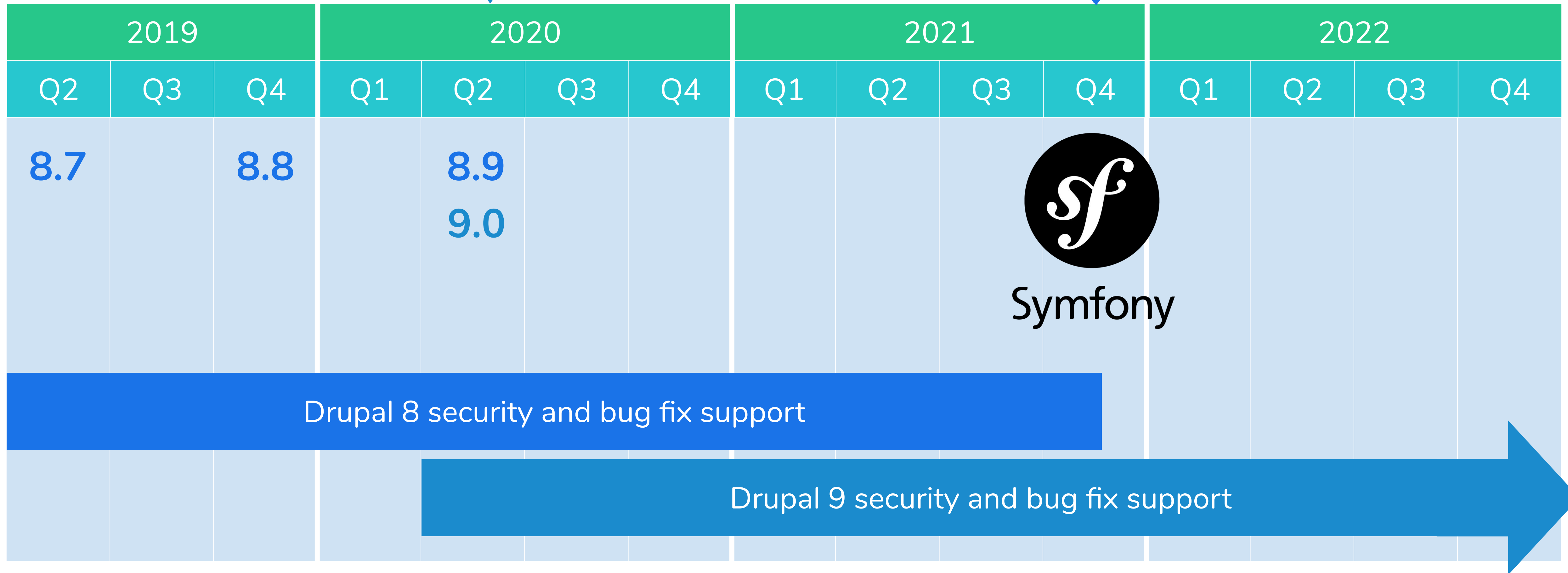


[drupal.org/core/dependencies](https://drupal.org/core/dependencies)



First Drupal 9 release

Drupal 8 end of life









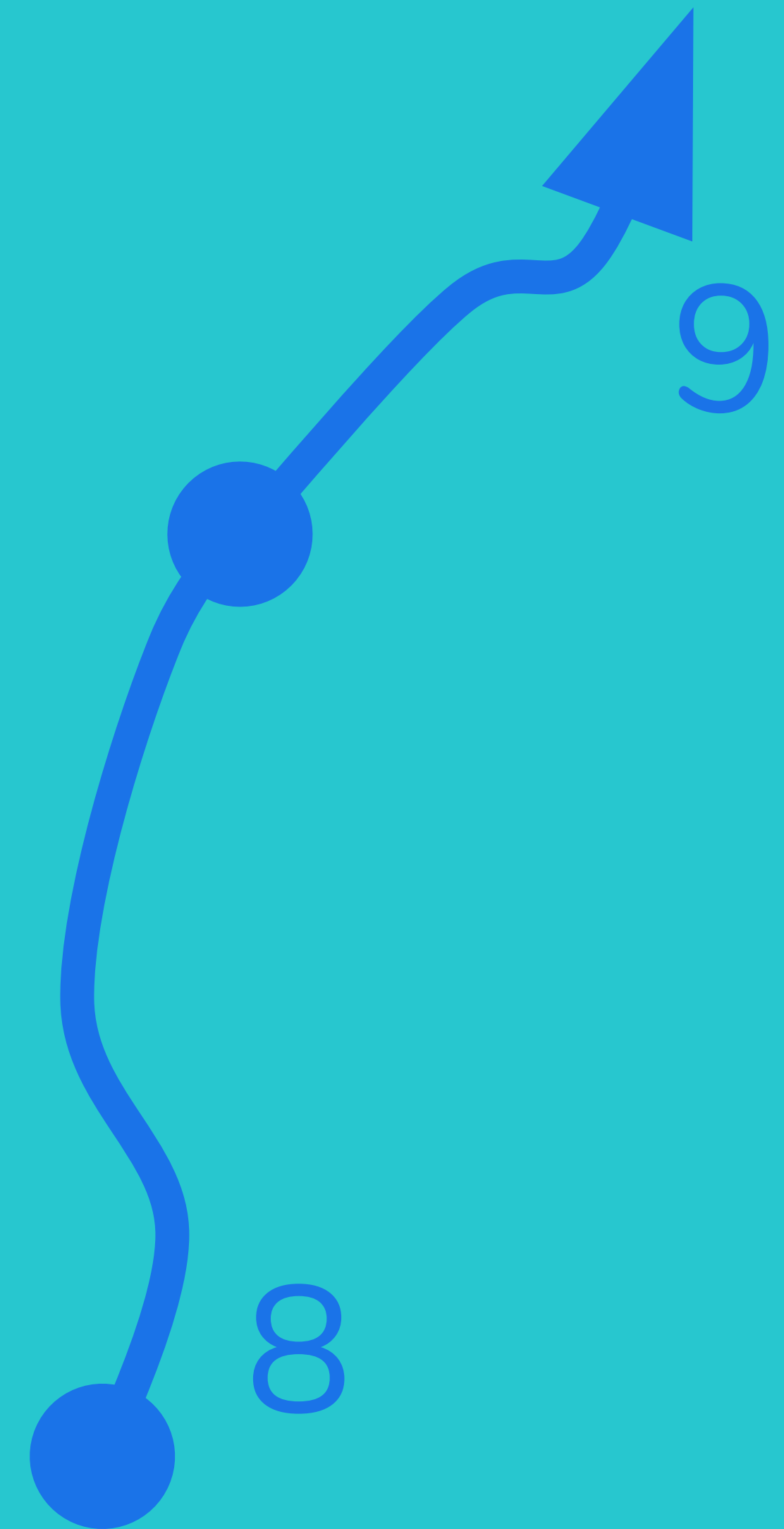
# THE MAKING OF DRUPAL 9 3

Major versions  
were brand new  
codebases in the  
past





Now major  
versions are  
derived from the  
previous major



# Deprecation processes

Backward compatible APIs are kept while future changes are indicated so API consumers can prepare for the change to Drupal 9.





## 8.7 API



## 8.7 API

New solution





# 8.7 API

New solution

Deprecated



## 8.7 API

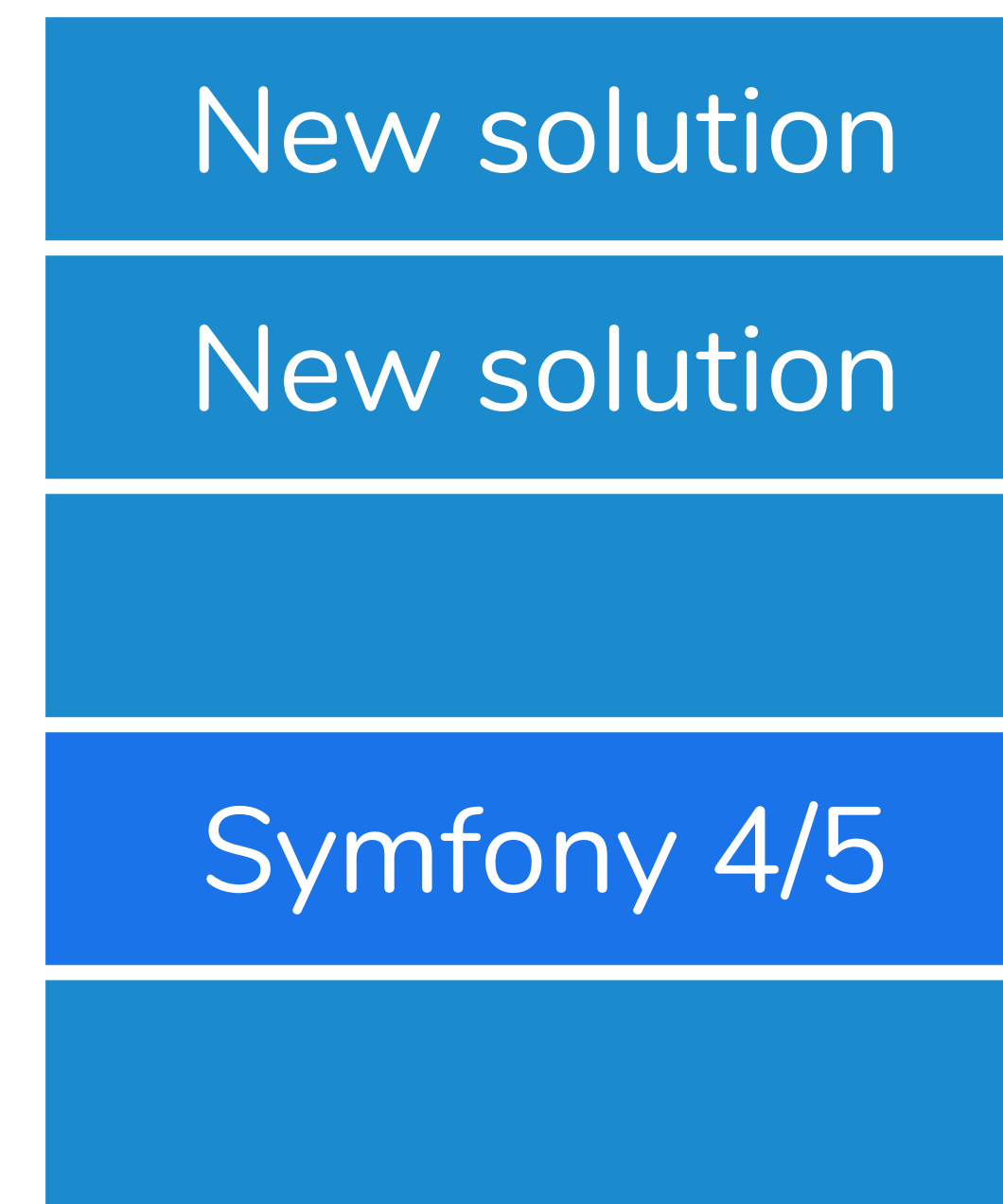


...

## 8.9 API



## 9.0 API



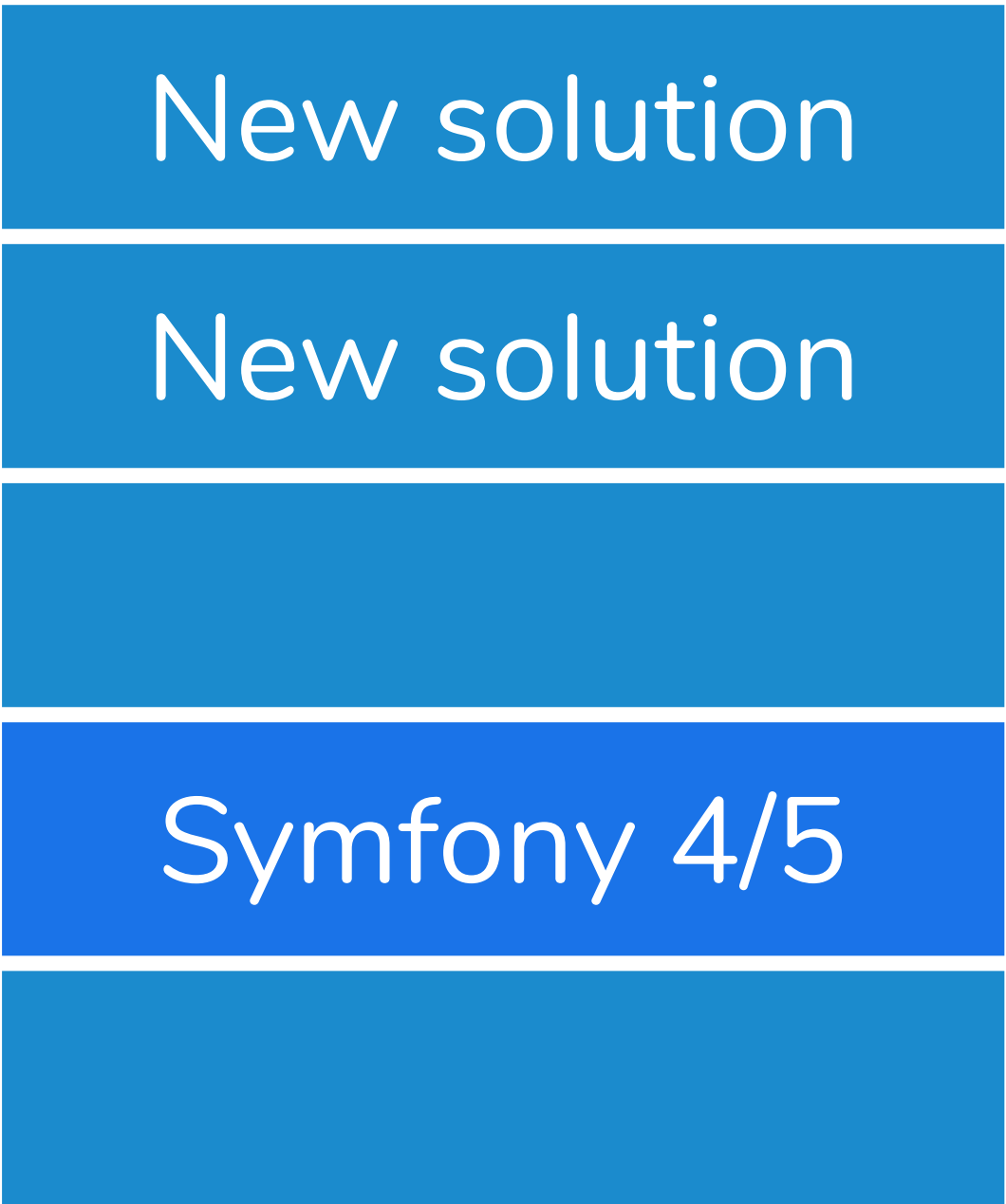


**Drupal 9.0 API =**  
Drupal 8.9 API minus  
deprecated parts  
plus third party  
dependencies  
updated

**8.9 API**



**9.0 API**



Drupal 8 modules **not**  
**using deprecated**  
**APIs** will continue to  
work on Drupal 9.

## 8.9 API



## 9.0 API



We are building  
Drupal 9 in  
Drupal 8  
step-by-step.







# PREPARING FOR DRUPAL 9

4

Keep Drupal core and  
contributed projects up to date





```
// Before
```

```
file_unmanaged_copy($source, $destination);
```

```
// After
```

```
\Drupal::service('file_system')->copy($source, $destination);
```

Use this with actual  
dependency  
injection to get the  
benefits.





```
/**
 * Copies a file to a new location without database changes or hook invocation.
 *
 * [...]
 *
 * @deprecated in Drupal 8.7.0, will be removed before Drupal 9.0.0.
 *   Use \Drupal\Core\File\FileSystemInterface::copy().
 *
 * @see https://www.drupal.org/node/3006851
 */
function file_unmanaged_copy($source, $destination = NULL, $replace = FILE_EXISTS_RENAME)
{
    @trigger_error('file_unmanaged_copy() is deprecated in Drupal 8.7.0 and will be removed
before Drupal 9.0.0. Use \Drupal\Core\File\FileSystemInterface::copy(). See
https://www.drupal.org/node/3006851.', E_USER_DEPRECATED);

    // [Backwards compatible implementation]
}
```



drupal> curl -0 -L https://github.com/mglaman/drupal-check/releases/latest/download/drupal-check.phar

% Total	% Received	% Xferd	Average Speed	Time	Time	Time	Current	
			Dload	Upload	Total	Spent	Left	Speed
100	148	0	148	0	406	0	--:--:--	405
100	608	0	608	0	1046	0	--:--:--	1046
100	10.0M	100	10.0M	0	3662k	0	0:00:02	6427k

drupal>

<https://github.com/mglaman/drupal-check>





Line src/Tests/PathTestBase.php

17 Class Drupal\path\Tests\PathTestBase extends deprecated class  
Drupal\simpletest\WebTestBase:  
in Drupal 8.8.0 and will be removed before Drupal 9.0.0. Instead,  
use \Drupal\Tests\BrowserTestBase. See  
<https://www.drupal.org/node/3030340>.

Line tests/src/Kernel/Migrate/d6/MigrateUrlAliasTest.php


78 Call to deprecated method lookupDestinationId() of class  
Drupal\migrate\Plugin\MigrateIdMapInterface:  
in Drupal 8.1.x, will be removed before Drupal 9.0.x. Use  
lookupDestinationIds() instead.

[ERROR] Found 5 errors

drupal> █

<https://github.com/mglaman/drupal-check>



<input type="checkbox"/> PROJECT	STATUS
<input type="checkbox"/> Example.com Form Tools	 Not scanned

▼ CONTRIBUTED MODULES AND THEMES








Contributed code is available from drupal.org. Problems here may be partially resolved by updating to the latest version. [Read more about how to update contributed projects.](#)

**6 ERRORS**  
Found in 3 projects.

**6 WARNINGS**  
Found in 2 projects.

**2 CHECKED**  
No known errors found.

**2 NOT SCANNED**  
Scan to find errors.

<input type="checkbox"/> PROJECT	AVAILABLE UPDATE	STATUS
<input type="checkbox"/> <b>CDN 8.x-3.3</b> CDN 8.x-3.3 has no remaining deprecation errors, is as ready as possible for Drupal 9!	Up to date	 No known errors
<input type="checkbox"/> <b>Chaos Tools 8.x-3.0</b>	8.x-3.2	 4 errors, 2 warnings
<input type="checkbox"/> <b>Git Deploy 8.x-2.0-alpha1</b>	Up to date	 No known errors
<input type="checkbox"/> <b>Pathauto 8.x-1.4</b>	Up to date	 1 error
<input type="checkbox"/> <b>Redirect 8.x-1.3</b>	8.x-1.4	 Not scanned
<input type="checkbox"/> <b>1.5</b>	Up to date	 Not scanned
<input type="checkbox"/> <b>alpha5+3-dev</b>		








## Upgrade Status 8.x-1.0-beta1



1 error found. 4 warnings found. Items categorized "Fix now" are uses of deprecated APIs from community unsupported core versions.

See [#3056118: Keep Upgrade Status itself Drupal 9 compatible other than testing code](#)

STATUS	FILE NAME	LINE	ERROR
 Fix later	modules/contrib/upgrade_status/src/ <b>DeprecationAnalyser.php</b>	364	Call to deprecated function <a href="#">file_prepare_directory()</a> . Deprecated in Drupal 8.7.0, will be removed before Drupal 9.0.0. Use <code>\Drupal\Core\File\FileSystemInterface::prepareDirectory()</code> .
 Fix later	modules/contrib/upgrade_status/src/ <b>DeprecationAnalyser.php</b>	372	Call to deprecated function <a href="#">file_prepare_directory()</a> . Deprecated in Drupal 8.7.0, will be removed before Drupal 9.0.0. Use <code>\Drupal\Core\File\FileSystemInterface::prepareDirectory()</code> .
 Fix now	modules/contrib/upgrade_status/tests/modules/ upgrade_status_test_contrib_error/src/Controller/ <b>UpgradeStatusTestContribErrorController.php</b>	15	Call to deprecated function <a href="#">format_string()</a> . Deprecated in Drupal 8.0.0, will be removed before Drupal 9.0.0. Use <code>\Drupal\Component\Render\FormattableMarkup</code> .
 Check manually	modules/contrib/upgrade_status/tests/modules/ upgrade_status_test_error/fatal.php	3	Syntax error, unexpected T_STRING on line 3
	modules/contrib/upgrade_status/tests/modules/ upgrade_status_test_error/src/Controller/ <b>UpgradeStatusTestErrorController.php</b>	10	Call to deprecated function <a href="#">menu_cache_clear_all()</a> . Deprecated in Drupal 8.6.0, will be removed before Drupal 9.0.0. Use <code>\Drupal\Core\Menu\MenuCache-&gt;invalidateAll()</code> instead.



# Upgrade Status

[https://drupal.org/project/upgrade\\_status](https://drupal.org/project/upgrade_status)

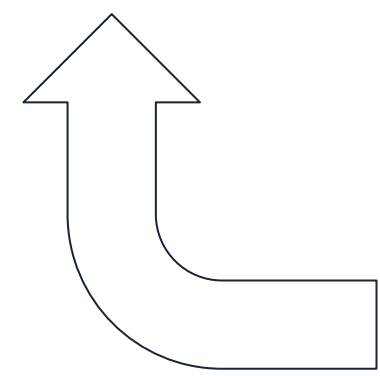


# Test on drupal.org with drupalci.yml snippet

```
build:
  assessment:
    validate_codebase:
      # Static analysis of code for @deprecated uses.
    phpstan:
      halt-on-fail: false
  testing:
    run_tests.standard:
      types: 'Simpletest,PHPUnit-Unit,PHPUnit-Kernel,PHPUnit
      # Fails on trigger_error() calls encountered.
      suppress-deprecations: false
```

# Customizing DrupalCI Testing for Projects

[https://www.drupal.org/drupalorg/docs/drupal-ci/  
customizing-drupalci-testing-for-projects](https://www.drupal.org/drupalorg/docs/drupal-ci/customizing-drupalci-testing-for-projects)



<http://bit.ly/custom-drupalci>





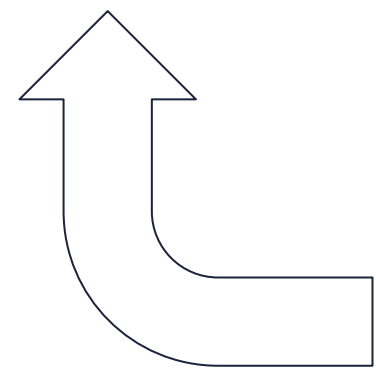
# Drupal8-Rector proof of concept automates some fixes

```
@@ -103,7 +105,7 @@  
  
    $machine_name = '';  
    if (!empty($featurename) && empty($packages[$featurename])) {  
-        drupal_set_message($this->t('Feature @name does not exist.', ['@name' => $featurename]), 'error');  
+        $this->messenger()->addError($this->t('Feature @name does not exist.', ['@name' => $featurename]));  
        return [];  
    }  
    elseif (!empty($featurename)) {  
@@ -178,7 +180,7 @@  
    $config = $this->featuresManager->getConfigCollection();  
    $items = array_filter($form_state->getValue('diff'));  
    if (empty($items)) {  
-        drupal_set_message($this->t('No configuration was selected for import.'), 'warning');  
+        $this->messenger()->addWarning($this->t('No configuration was selected for import.'));  
        return;  
    }  
    foreach ($items as $config_name) {  
@@ -192,7 +194,7 @@  
        $type = ConfigurationItem::fromConfigStringToConfigType($item['type']);
```



# Drupal8-Rector

<https://pronovix.com/blog/drupal-9-automated-deprecated-code-removal-proof-concept>



<http://bit.ly/drupal8-rector>



Should you remove all  
deprecated code use  
immediately?



Custom code: as fast as feasible



Contributed projects: be  
compatible with supported core





[Acquia](#) Drupal 6 and 7 porting and data, Drupal 8 branch

[Consensus Enterprises](#) Maintenance and Drupal 8 data

## Project information

Module categories: [Utility](#)



**2,416** sites report using this module

41,968 downloads



[Drupal 9](#) is planned to be released June 3, 2020.

See [#3056118: Keep Upgrade Status itself Drupal 9 compatible other than testing code](#)



Stable releases for this project are covered by the [security advisory policy](#).

There are currently no supported stable releases.

## Downloads

**8.x-1.0-alpha3** released 29 May 2019

✓ Recommended by the project's maintainer.

[tar.gz](#) (29.37 KB) | [zip](#) (53.17 KB)

When do we know all the  
deprecated things?



Drupal 8.8 is the last version to  
deprecate for Drupal 9





Should I create  
9.x-1.x-dev branches  
for my projects?



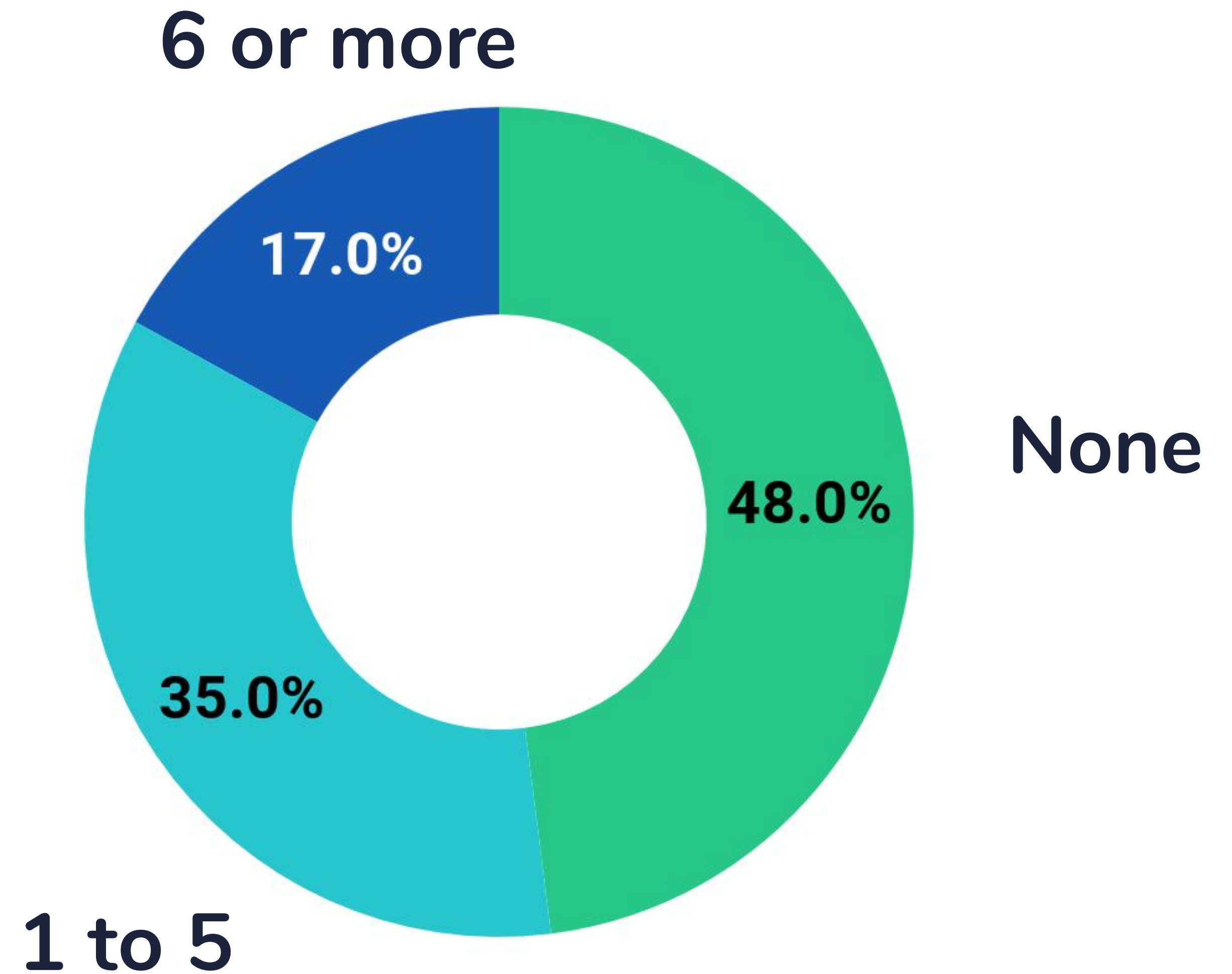
<https://dgo.to/2807145>



Will contributed modules be  
compatible?



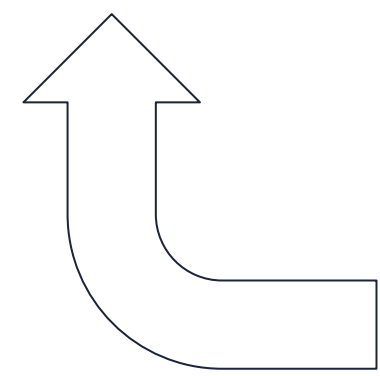
Drupal 9  
compatibility  
issues found in  
7000+ modules  
in March 2019





# phpstan warnings for supported drupal.org projects

[https://dispatcher.drupalci.org/job/phpstan/  
lastBuild/checkstyle/](https://dispatcher.drupalci.org/job/phpstan/lastBuild/checkstyle/)



<http://bit.ly/drupalci-phpstan>

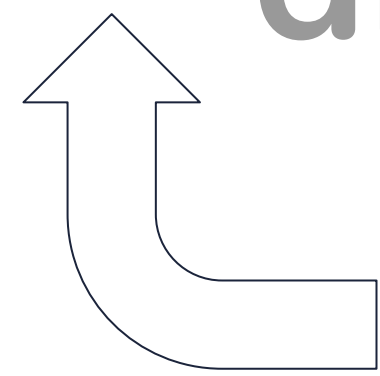


# Is Your Module Ready for Drupal 9?

## Click Here to Find Out

*by Dwayne McDaniel*

<https://pantheon.io/blog/your-module-ready-drupal-9-click-here-find-out>



<http://bit.ly/d9-module-ready>



“

“The big deal about Drupal 9 is...  
that it should not be a big deal.”

@dries

<https://dri.es/plan-for-drupal-9>

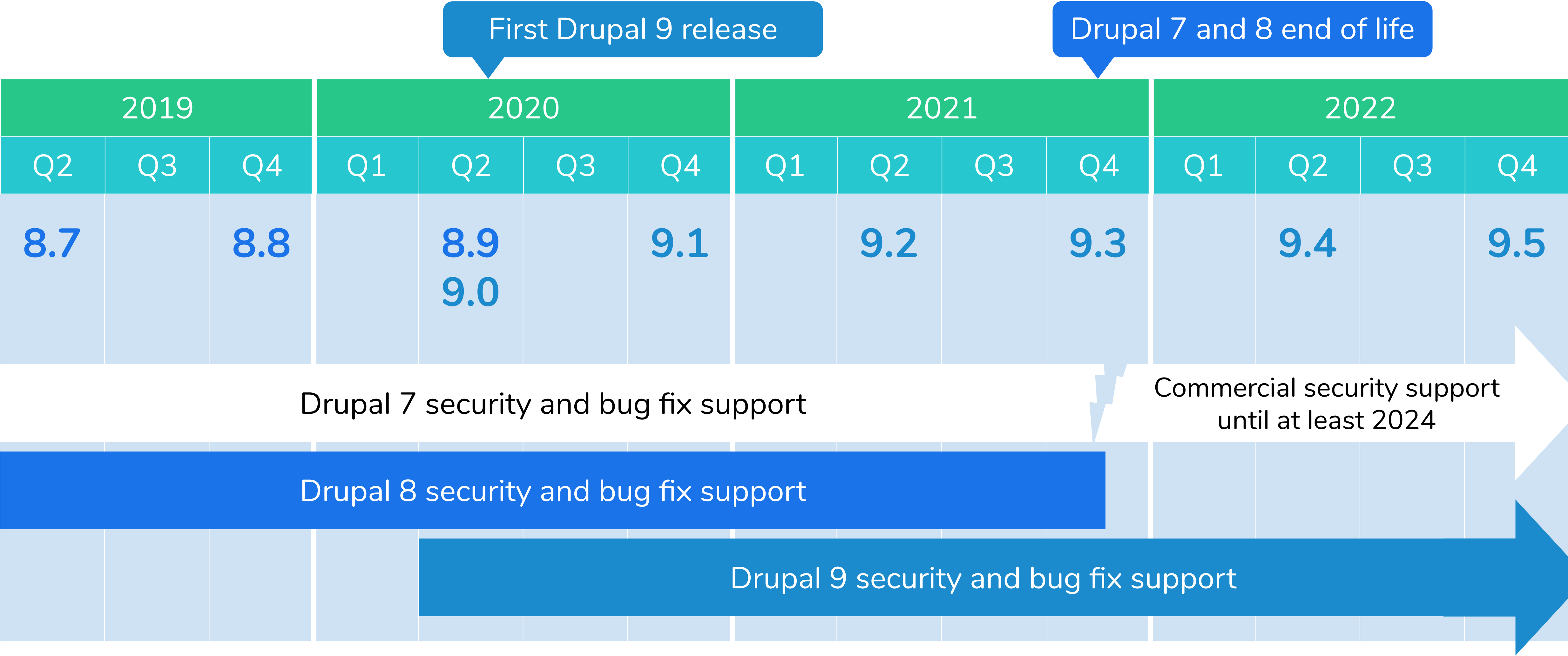






I AM ON  
DRUPAL 7!

5





Better  
media

Config  
mgmt

JSON:  
API

Content  
Moderation

Layout  
Builder

Multilingual

BigPipe



# Contrib

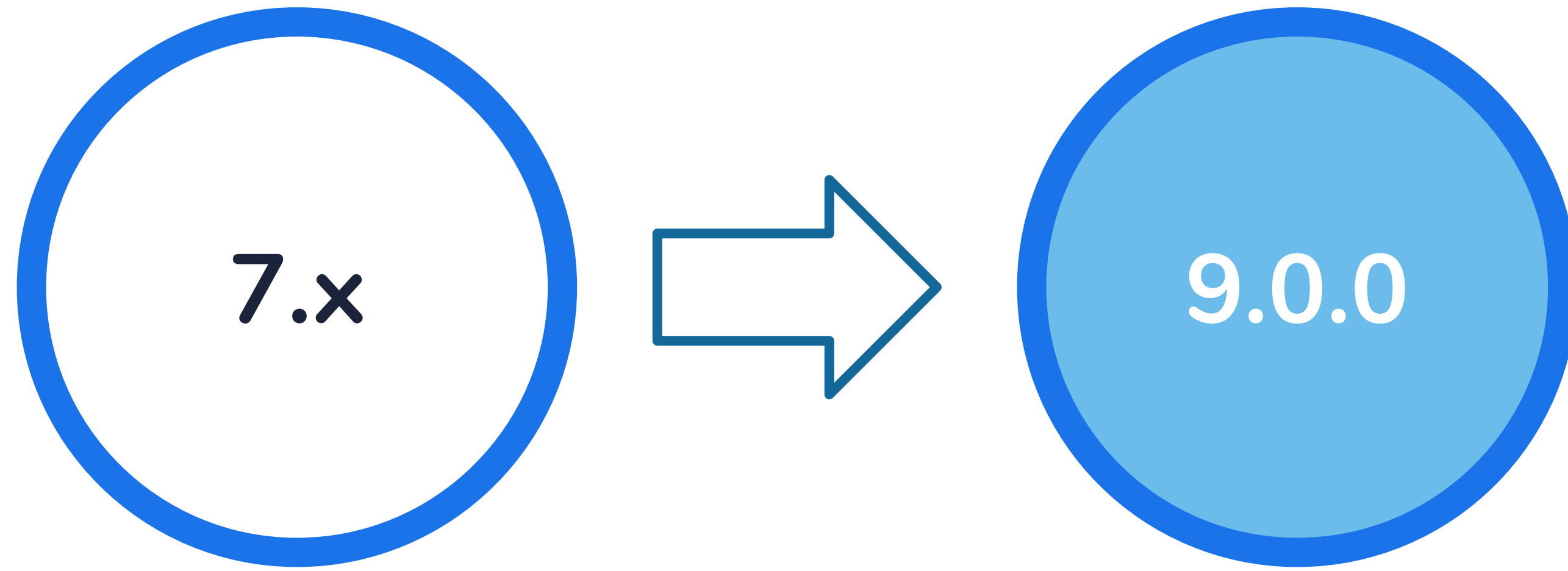
Use Upgrade  
Status module  
(Drupal 7  
version) to  
estimate  
upgradability.

# Custom

Use Drupal  
Module  
Upgrader to  
get a head start  
on updating  
your custom  
code.

# Content

Use the core  
Migrate  
module suite  
with contrib  
extensions as  
needed.



**Upgrade Status:** [drupal.org/project/upgrade\\_status](https://drupal.org/project/upgrade_status)

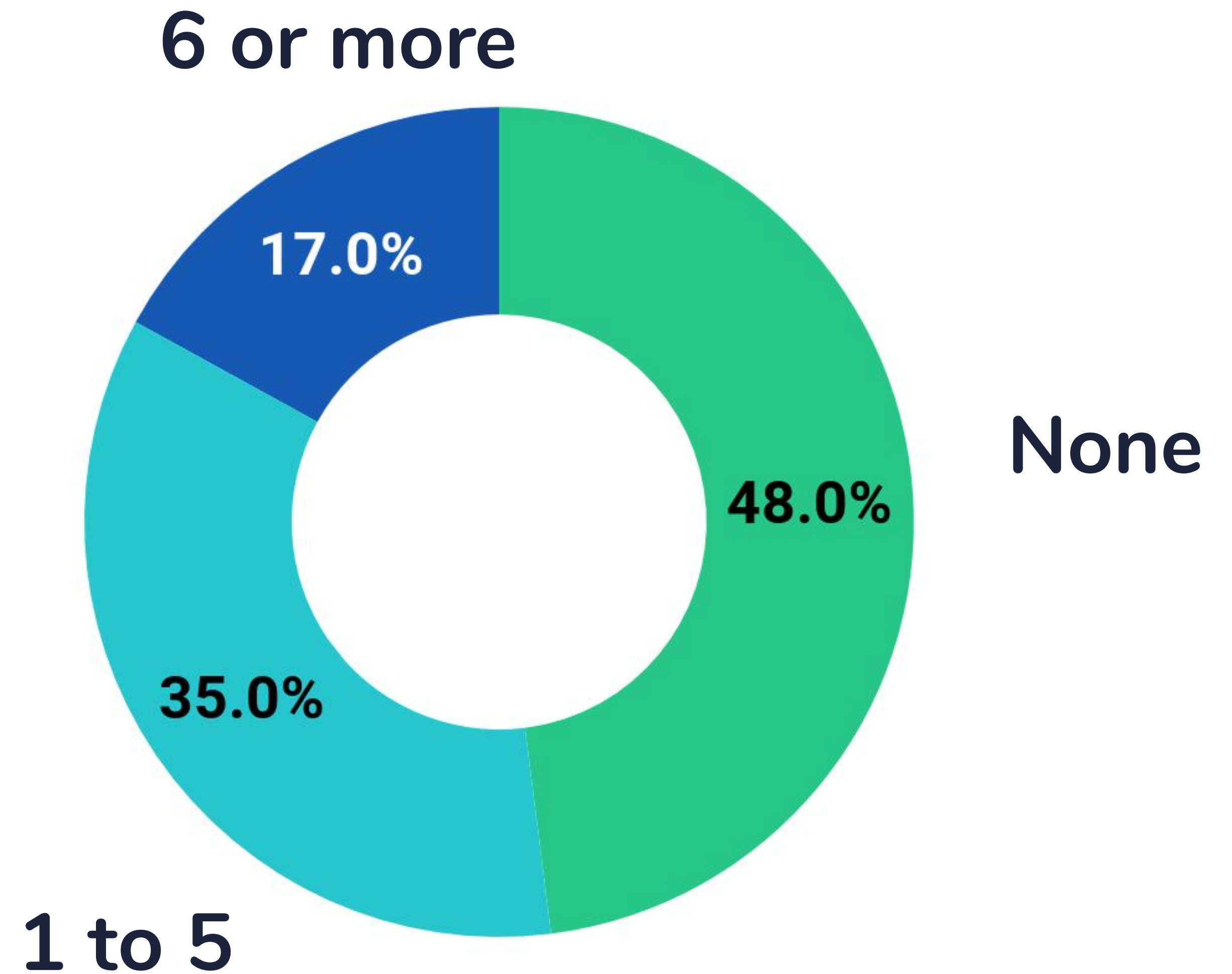
**Drupal Module Upgrader:**

[drupal.org/project/drupalmoduleupgrader](https://drupal.org/project/drupalmoduleupgrader)

**Migrate suite (core)**

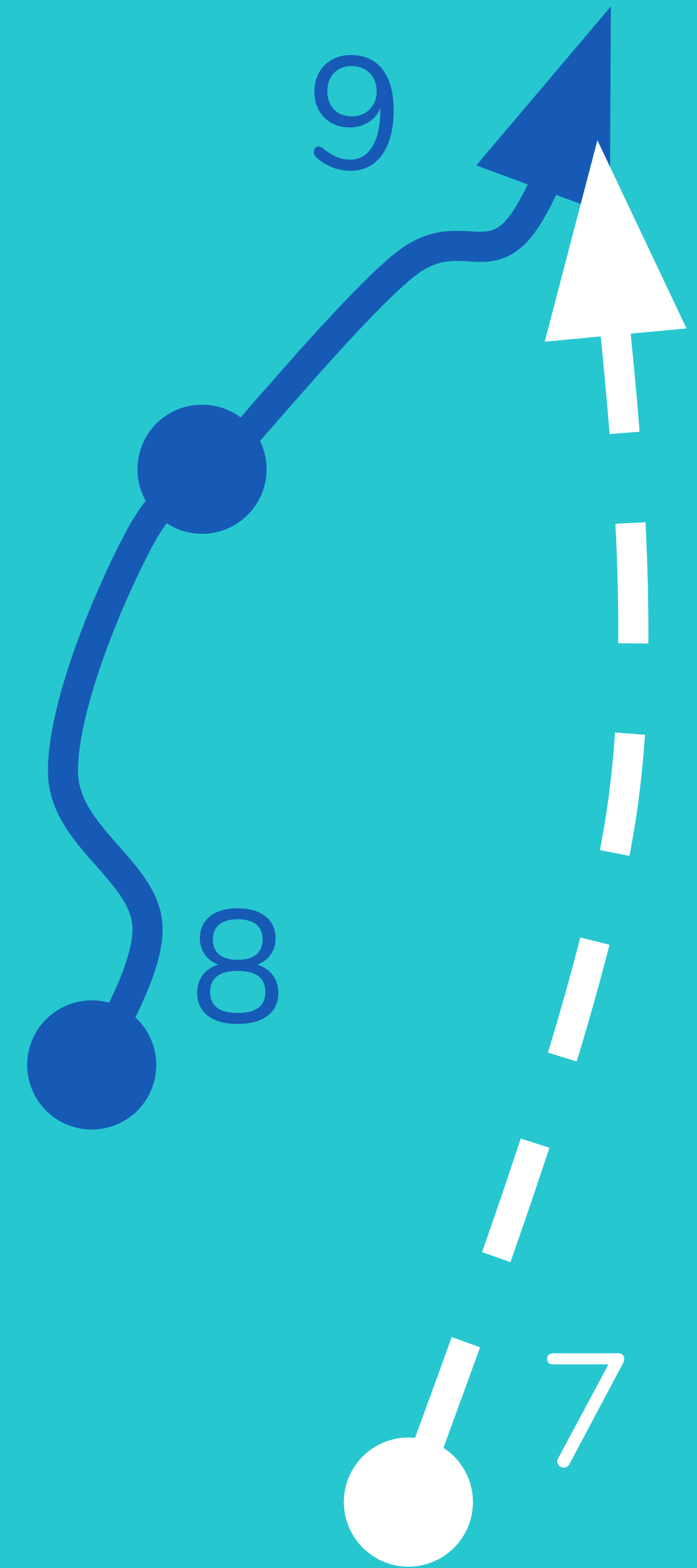


Drupal 9  
compatibility  
issues found in  
7000+ modules  
in March 2019





Skipping Drupal  
8 does not  
actually bring  
benefits



Use `drupal-check` in your  
Drupal 7 migration to ensure  
Drupal 9 compatibility.



# Recap

1. Drupal innovates twice a year and will continue to do so.
2. Drupal 9 is built in Drupal 8 step-by-step.
3. Keep up with Drupal 8 and you will be prepared for an easy way to 9.
4. For Drupal 7 sites there is no reason to wait until 9.
5. Vendors will offer extended Drupal 7 support.





**Original Slides: [bit.ly/state-of-drupal-9](http://bit.ly/state-of-drupal-9)**

**Documentation: [drupal.org/docs/9](http://drupal.org/docs/9)**



# CREDITS

Special thanks to all people who made and share these awesome resources for free:

- ☐ Content by @gaborhojtsy, some inspired by @Dries
- ☐ Presentation template designed by [Slidesmash](#)
- ☐ Photographs by [unsplash.com](#) and [pexels.com](#)
- ☐ Vector Icons by [Matthew Skiles](#)



# Thanks!

Recording and *\*this\** version of slides available at:  
[https://www.drupalgovcon.org/2019/program/sessions/  
state-drupal-9](https://www.drupalgovcon.org/2019/program/sessions/state-drupal-9)

@amberhimesmatz



