



Drupal, consolidation and AI

Better digital services for citizens, step by step

Christoph Breidert, 1xINTERNET · Helge Notø, Drupal Norway



YOUR PRESENTER

Christoph Breidert

Co-founder and Managing Director, 1xINTERNET

Building 1xINTERNET since 2013, with public and private sector clients across Europe and the US.

Product Lead, Drupal AI Initiative

Leading what the open-source Drupal AI Initiative builds into Drupal: AI search, content review, translation and more.

Speaker on Drupal and AI

Frequent speaker at DrupalCon, Drupal AI Summit, and other industry conferences.



PLANNED TOGETHER WITH

Helge Notø

Thank you, Helge

For organising this session and bringing us all into the same room today.

20+ years with Drupal

As a user, developer and project manager.

Drupal community in Norway

Organiser of the PHP Bergen and Drupal Bergen meetups since 2017, Drupal Norway board member since 2024.



About 1xINTERNET

Founded in 2013

Headquarters in Frankfurt, offices in Berlin, Reykjavik and Conil de la Frontera.

A team of 87

An international, full-service digital agency focused on Drupal and React.

Strategy and consulting

Digital strategy and consulting, from the first idea to a clear roadmap.

UX and design

User research, user experience and interface design.

Development

Websites, portals and platforms built with Drupal and React.

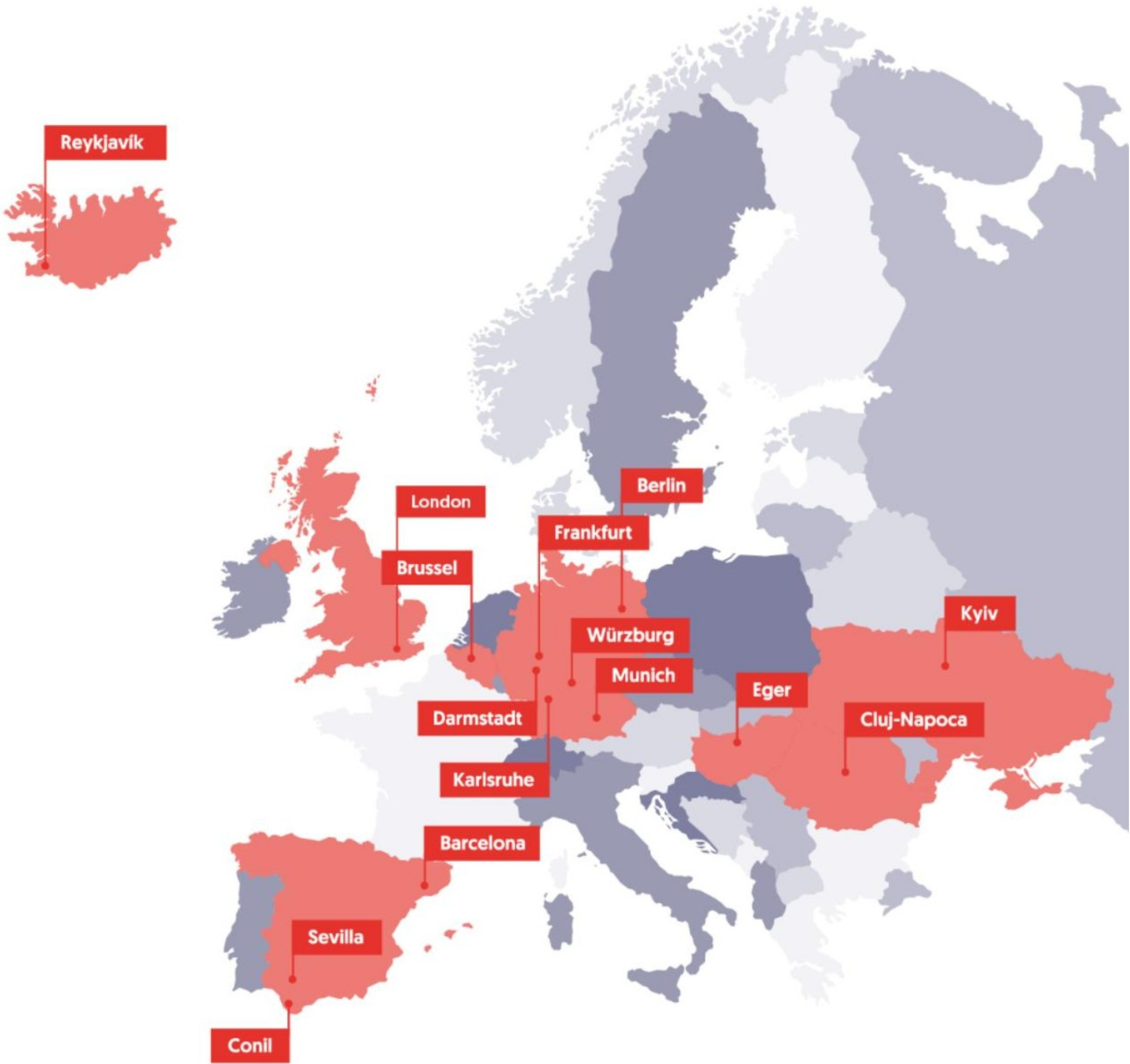
Marketing and hosting

Web tracking, SEO, GEO, online marketing, hosting and support.

WHERE WE WORK

A team across Europe

Our people work from 15 locations across Europe, from Reykjavik to Kyiv.
1xINTERNET is a Diamond Certified Drupal Partner.



PUBLIC-SECTOR EXPERIENCE

We know public services

We build and run digital services for the City of Reykjavík and for public organisations in Germany and the Netherlands. We know the processes, the requirements and the accessibility rules first-hand.



Reykjavík

City of Reykjavík

A social intranet for more than 9,000 city employees, connected to HR and the city's login.



Safety Region South Limburg

Crisis communication for 16 municipalities: three Drupal sites and an app, 40,000+ monthly users.



Umwelttechnik BW

A state agency in Baden-Württemberg: six websites brought together on one Drupal platform.

THE CORE PROCESS

Inform citizens, then let them act

Almost every public service follows the same pattern: people look for information, and then they need to do something with it.

1 Find information

Find the right that provides the relevant information quickly (opening hours, rules and regulations, etc.).

2 Ask for more

Request more information when the answer is not on the website.

3 Take action

Apply for something, for example a kindergarten place or renewing a fishing licence.

WHY DRUPAL

What is Drupal?

Drupal is an open-source platform for websites and digital services. No single company owns it, and there are no licence fees. Governments, universities and large organisations use it around the world.



Open source

Free to use, change and extend. You pay for work, not for licences.

One platform, many services

Websites, intranets, portals, forms and search in one system.

Ready for the public sector

Accessible, multilingual and secure, with fine-grained roles and permissions.

THE PROBLEM TODAY

Many tools make simple things hard

Most organisations run a mix of systems that grew over time: multiple websites with different technologies, a form tool, different SEO/AI tools, support/ticket systems, etc. Each has its own content, logins and contracts.

Scattered content

The same information lives in several places and slowly drifts apart.

Broken journeys

Citizens jump between systems to find information and then to act on it.

Hard to improve

Every change has to be made, paid for and tested several times over.

CONSOLIDATION

One platform, one place to improve

Bringing websites, forms and services onto one platform makes the core process easier to run. Improve something once, and every site benefits.

Easier to manage

One system, one set of editing tools, one place for all content.

Easier to improve

Better accessibility, search and design reach every site at once.

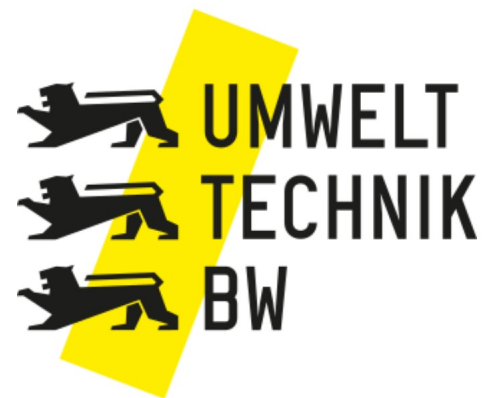
Easier to extend

New services and AI features build on what is already there.

CASE: UMWELTECHNIK BW

Six websites, one platform

Umwelttechnik BW, a state agency in Baden-Württemberg, ran a mix of content systems and static sites. We moved them onto one shared Drupal platform, with one search across all content.



6 → 1

Six websites and microsites on one shared codebase, each keeping its own identity.

99.5%+

Platform uptime, with hosting and support from 1xINTERNET.

WCAG 2.1 AA

Accessible, mobile-first design across all sites.

LICENCE COSTS

Licence costs add up quickly

Some Norwegian municipalities run on proprietary SaaS content platforms. We are replacing setups like these in many places, because the licence costs add up quickly.

Costs that keep growing

Prices often rise with more users, content, traffic and features.

Lock-in

Content and integrations are tied to one vendor, which makes leaving hard.

The open alternative

With Drupal the budget goes into better services, not into licences.

PUBLIC MONEY, PUBLIC CODE

Norway would be in good company

Public money should be spent on services, not on vendors whose business model depends on lock-in. Across Europe, open source is becoming the expectation.

Iceland

Open source is the expected choice for public digital services.

Germany

Open source is standard thinking; states like Schleswig-Holstein are moving their administration to it.

Denmark

The Ministry of Digitalisation began replacing Microsoft Office with open source in 2025.

PART 2 · FROM WEBSITES TO AI

And then came AI

It changes how citizens look for answers, and what they expect when they find you.

CHANGE 1 · OUTSIDE YOUR WEBSITE

Citizens ask AI first

Before they visit a municipal website, many citizens ask an AI. The answer they get is only as good as the content the AI can find, understand and trust.

AI answers in Google Search

An AI-written answer appears above the links, often before anyone clicks.

Gemini and ChatGPT

“How do I apply for a kindergarten place in Bergen?” asked in a chat, not a search box.

Siri and voice assistants

On the phone, the answer is read out loud. No website in sight.

CHANGE 2 · ON YOUR WEBSITE

People don't browse. They ask.

Used to chat assistants, citizens expect the same on a public website: type a question, get an answer, and move straight on to act.

Questions, not menus

Instead of clicking through navigation, people type what they need.

Answers, not result lists

Ten links feel like work. A direct answer with its source feels like service.

Then straight to action

From the answer to the right form, booking or contact, without searching again.

WHERE TO START

One journey, two goals

Good answers from AI, outside and on your own website, rest on the same foundation as a good website: one platform and clean, structured content.

1 Consolidate

Bring websites, forms and services onto one open platform.

2 Make content AI-ready

Correct, consistent and structured, so people and AI understand it the same way.

3 Add AI step by step

Each step pays off on its own and prepares the next one.



AI APPLICATIONS

AI that builds step by step

1 Content cleanup

Find and fix stale, inconsistent and wrong content. The foundation.

2 AI search

Citizens ask questions and get direct answers from clean content.

3 Request routing

Requests reach the right people faster.

4 Open to AI agents

Citizens' own assistants find information and act for them.

STEP 1 · AI CONTENT CLEANUP

Get the content in shape first

AI reviews every page and flags what is outdated, inconsistent or off-style. Editors decide what to change.

1 Find the problems

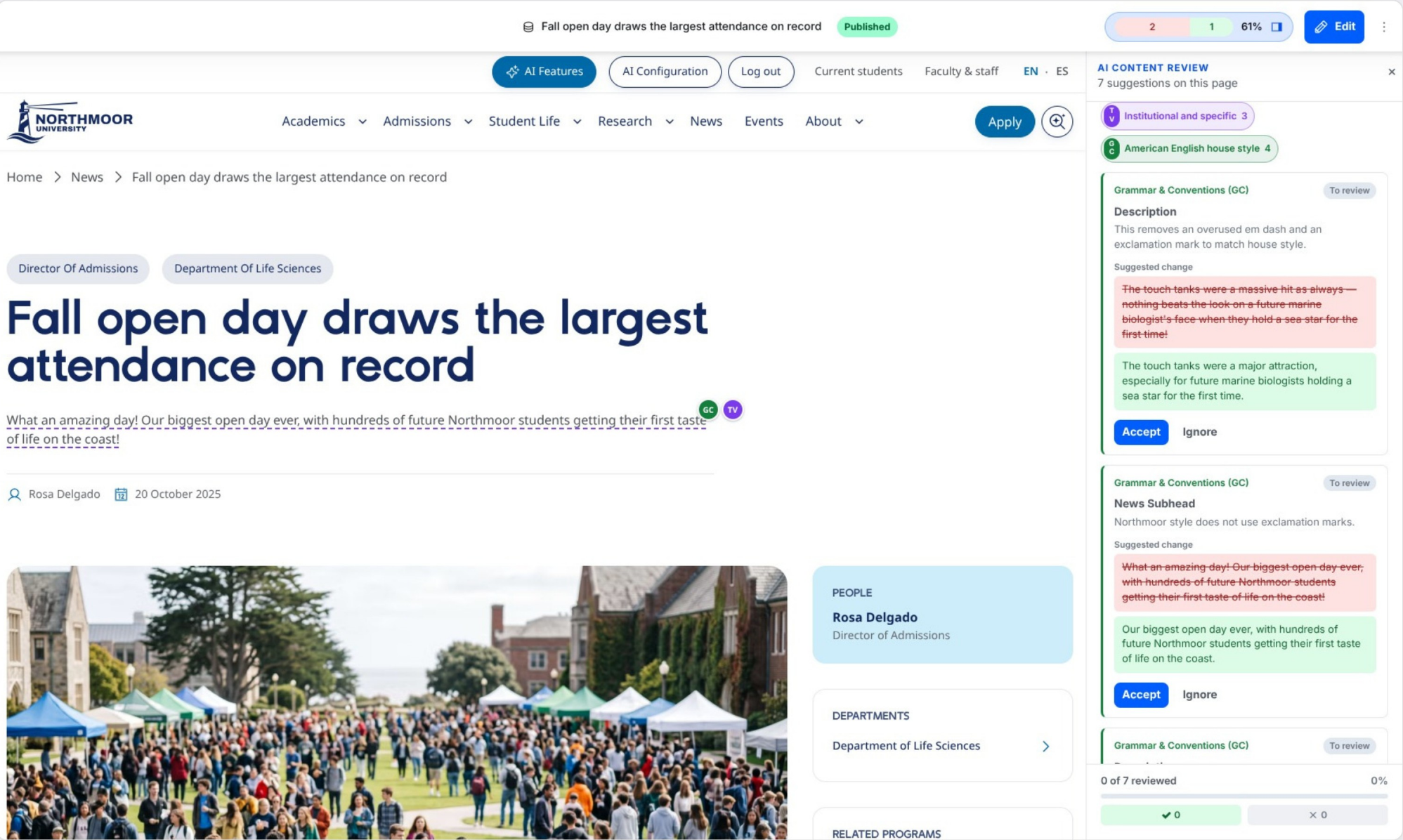
Outdated facts, contradictions and off-style wording.

2 Fix them at scale

AI suggests the change, editors accept or ignore it.

3 Keep it clean

Regular checks so quality does not drift again.



Drupal AI demo · Try it yourself: new.drupal.org/ai/demo

STEP 2 · AI SEARCH

Ask a question, get an answer

With clean content, citizens ask in their own words and get a direct answer, built from your own pages.

1 Plain language

People ask as they would ask a person, not in keywords.

2 Answers with sources

Every answer links to the official page it comes from.

3 Fewer information requests

Less time spent on questions the website already answers.

ASK AI

New search

What courses does the Marine Resource Management program include?

The Marine Resource Management program includes study in fisheries policy and management, stock assessment, and marine resource economics ¹. The program page also says the stock assessment course is the same one taken by fisheries science students, and the economics portion covers topics such as adjustment costs and valuation ¹.

There is also a course page for Marine Resource Economics that lists topics including open access and rent dissipation, rights-based management, bioeconomic modeling, valuation of non-market goods, and adjustment costs ².

What are the most important topics of Marine Economics?

The key topics listed for Marine Resource Economics are open access and the rent dissipation problem, rights-based management, bioeconomic modeling, and valuation of non-market goods ². The course also gives extended attention to adjustment costs in declining fisheries, especially constraints like licensing, debt, and vessel capital, and it emphasizes the limits of economic valuation ².

Was this helpful?

Ask a follow-up...

Sources

Numbers match the citations in the answer. Links open in a new tab.

1

Marine Resource Management



MS
A professional master's in managing fisheries and other marine resources, built on the...
⌚ 2 years 🎓 Graduate
📅 Starts Fall

2

Marine Resource Economics



MPOL 540
The economics of marine resource use, taught with its limits attached — including the parts the discipli...
🎓 2 credits ⌚ annually
📅 Offered spring

Drupal AI demo · Try it yourself: new.drupal.org/ai/demo

STEP 3 · REQUEST ROUTING

The right request to the right person

Most of this is standard Drupal: structured forms and workflows send each request to the responsible team. AI helps where requests arrive as free text.

Structured forms

Ask for exactly the details each type of request needs.

Clear workflows

Every request has an owner, a status and a next step.

AI assist

Free-text messages are sorted by topic and suggested to the right team.

OUTLOOK · AI AGENTS

Open the platform to AI agents

More and more citizens will ask their own assistant, such as Gemini, to handle things for them. That only works once content, search and requests are clean and connected, so it comes last.

“Get me a fishing licence”

The assistant finds the rules and the right form, and starts the application.

“Find me a kindergarten place”

The assistant checks the options and helps the family apply.

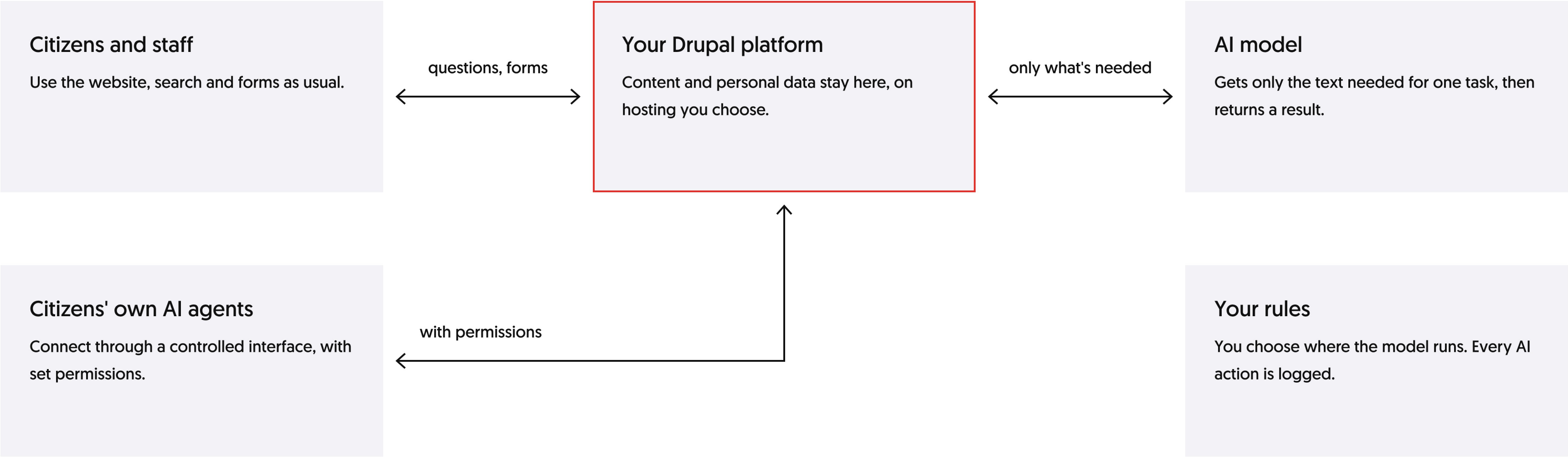
On your terms

Agents get the same permissions and checks as people do, nothing more.

DATA FLOW

Where does my data go?

Your platform stays in the middle. AI services only see what a single task needs, and you decide which services are used.



SOVEREIGN AI OPTIONS

You decide where AI runs

Many organisations don't know they have a choice. Drupal AI works with many AI providers, so you can pick the option that fits your rules and change it later.

A Your own infrastructure

A custom or fine-tuned model running on your own servers. Nothing leaves your network.

B Your existing cloud

AI services in a cloud you already use, such as Azure, if that is sovereign enough for you.

Mix and change

Choose per use case, and switch providers without rebuilding the website.

SUMMARY

Each step builds on the last

Consolidate onto open-source Drupal, clean up the content, then add AI search, better routing and, finally, agents. At every step you stay in control of your data.

Consolidate

One open platform instead of many tools and licences.

Improve with AI

Content cleanup, search and routing, each building on the one before.

Stay in control

Your data, your hosting, your choice of AI.



Thank you. Questions?

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Thanks to Helge Notø for organising this session with us.