OPENSOURCE MEETS ENTERPRISE
HOW DRUPAL AND SAP HYBRIS CAN TEAM UP
Digital Transformation + Enterprise

TRACK SUPPORTED BY

Acquia™
Jan Pilarzeck
Managing Partner at trio-group

Entrepreneur & Consultant, former developer
Married, 2 kids
Heidelberg / Mannheim

#Espresso #MTB #Italy

j.pilarzeck@trio-group.de
www.trio-group.de

www.linkedin.com/in/jan-pilarzeck
www.xing.com/profile/Jan_Pilarzeck
WHAT’S IN FOR YOU?

How we used Drupal to build a powerful B2B marketing platform.
Integrating SAP Hybris, Microsoft Dynamics and Acquia Lift.
ABOUT THE CLIENT

- HARTING Technology Group
- Industrial connectors
- 700+ Mio turnover
- About 50 national subsidiaries
- 24 languages
- Decentralized marketing / editor teams
OUR RESPONSIBILITY

Concept & Design
Architecture
Implementation
Operations & Maintenance
Overall project lead
HOW IT BEGAN...
HOW IT BEGAN

Requirements & Situation
- Typo3
- 1 year
- Personalization
- SSO with SAP Hybris
- Microsoft Dynamics integration

Goal:
Unified user interface for website and SAP Hybris shop, without friction in brand experience
HOW IT BEGAN

The pitch

> 3 agencies
> More than 20 people attending
> 3 hours
> 168 charts
> ...some sleepless nights, fixing charts 30 minutes before the pitch

We were supported by:
> SAP consultant
> Acquia
CHALLENGE  Convince the client to use Drupal
Drupal is eating Typo3 and Sitecore for breakfast...

Selected CMS market share, Top 10k Websites worldwide
Source: builtwith.com

**Drupal**

- **3500+** core committers to Drupal 8
- **35000+** developers / module contributors
- **100000+** active contributors
- **1.000.000+** registrierte Benutzerkonten
- Internationale Entwickler-Zertifizierungsprogramme
- Globale Community mit hunderten Events jährlich

**Typo3**

- **200+** committers to Typo3 CMS7
- **79.000+** registrierte Benutzerkonten
- Zertifizierung nur auf Deutsch
- Community hauptsächlich in Deutschland, kaum verbreitet global
And then we waited endless 6 weeks...

...and they told us:
We make a PoC first, then we’ll decide!
POC-PHASE WHAT TO BE ANSWERED
Product data in Drupal?

- Hybris is providing all product and category data via json/Solr
- Imported as nodes and taxonomies

→ This was already a tremendous advantage for the editors, having access to product data within the CMS.
Is personalization working with Hybris?

> Basics
  > Acquia Lift
  > Contents in Drupal
  > Modular Design

> Integration
  > installed Acquia Lift modules in Drupal
  > C&P of Lift-JS-Snippet in Hybris

> Challenges
  > Hiding/showing of depending DOM elements
  > http BasicAuth
Going Headless or not?

- Most innovative approach
- Best result for user experience
- ...but also most expensive solution.
POC-PHASE

Acquia Lift

Drupal CMS

Further 3rd party systems

Pro: Best result
Con: Bottleneck, risk, costs
Acquia Lift

Drupal CMS

Further 3rd party systems

Pro: Less risk, costs
Con: additional concepts
Going Headless or not?

- Our conclusion & decision
  - Full headless approach is too expensive & too risky
  - We’ll use the frontends of Drupal and Hybris
  - ...but we build the most important features as decoupled widgets
SSO with Drupal & Hybris

Requirements:
- Login anywhere should result in being logged in everywhere
- Two types of users: SAP users, and a new additional one
- One centralized user database

First approach while PoC:
- Using the OAuth-API of Hybris

Result:
- Not possible with built-in feature of Hybris
- Authentication is not the problem
- No user and session information as feedback

Conclusion: we need a different approach
POC SUCCESSFUL? YES!
How did we solve the problems with Hybris OAuth?

- Individual implementation of an Identity Provider system
  - central user database was Hybris
  - Built to provide login- & session sharing for multiple systems

- We use native Drupal & Hybris users
  - So no other changes on permission management etc. were necessary

- JS-Widget, decoupled, communication via websockets
ARCHITECTURE OVERVIEW
Acquia Lift connects website, shop and CRM

Simple JS-snippet for Hybris
  - Tracking
  - Experience builder

Drupal
  - plugins for tracking & content hub

Custom middleware
  - Imports/syncs the customer data from CRM
  - Delivers relevant user behavior to CRM
  - Retrieve user information from Acquia Lift
PERSONALIZATION & PLATFORM ARCHITECTURE

Personalization

> Taxonomy used for behavior tracking

> Contents & teasers
  > Depending on market sector & role, if known from CRM
  > Based on user behavior for anonymous users

> Personal contact persons
  > ZIP / region for anonymous users
  > Data from CRM
WHERE ARE WE?

Drupal and Hybris, already achieved:
> SSO
> Personalization

Still to achieve for best UX:
> Unified layout
> Features
UNIFIED LAYOUT

➢ Key factor:
  ➢ Design made of one UX-team for both systems
  ➢ at the same time
  ➢ Modular layout, based on Atomic Design principles

➢ Shared assets

➢ Shared Header and Footer
  ➢ For each country, for each language
  ➢ Editors have control over navigation and contents

➢ Hybris retrieves regularly pre-rendered markup from D8-API
➢ Cached locally in Hybris
Features, that need to be accessible from everywhere

...additional, they also need data from one or even both systems.

**JS-WIDGETS**

So we used the decoupled-approach and implemented them as JavaScript-widgets.
Site search

- JS-widget is just UI
  - only passing through search phrase

- Requesting search APIs of Drupal and Hybris/Solr at the same time

- Last step: rendering of results, separated & categorized

Still missing & next steps:
- Autocomplete
- Improve quality of Drupal results
Contact widget

- Direct access to eChat, general contact information and personal contact
- Depending on CRM-data and/or ZIP

Mechanism:
- JS requests Acquia Lift user data
- Proxying through Drupal
- Once contact is determined, the particular contact information is retrieved from Drupal content
- Result is cached in browser cookie
User menu

- Logout timer & login status information
  - Important to customers, due to SAP-internal processes
- User menu
  - Depending on account type and permissions
  - Depending on data from Hybris
JS Widgets

> Widget-concept is essential for whole platform
  > Sharing of code
  > Easy maintenance
  > Stability
  > independency

> Smart deployment was crucial
  > Needs to be independent from Drupal or Hybris deployment
  > ...but at the same time there were dependencies

> Currently in development:
  > Wishlist, collecting different fragments, like pages/stories, products, categories, configurations etc.
LAUNCH APPROACHING
Challenges
- GoLive with 3 depending systems at the same time
- Coordination of 5 teams required – client-IT, client-marketing, Hybris-integrator, trio-group teams
- Data migrations in Hybris

Preparations
- Exact time schedule & responsibilities
- Checklists
- QA-scripts, primarily for checking that each API is talking to the correct ENV

Organizational
- Communication via HipChat
- Teams were in their offices
- Telephone conferences at certain milestones

Got problems? Yes!
- Data migration took longer than estimated
- Hotfixes in Drupal & widgets
- Problems with communication between IDP & Hybris
- Hybris deployment duration

Start: Sat, Dec 9, 2017, 8:00
CHEERS!
> Started with 8.3, now on 8.4; 8.5 on DEV

> Used modules
  > AdvAgg
  > Workbench moderation
  > Config Split
  > Paragraphs
  > Domain Access
  > GeoLocation
  > Redis
  > Media Entity
  > Search API
  > TMGMT with custom extension

> Deployment
  > Git
  > TeamCity
  > Dev – Stag – Prod

> Hosting
  > HA cluster
  > 3 VMs
  > D8-Backend and FE separated
9 Months from first byte to launch

RECAP
Lucky client
Proud team
IN THE UPCOMING MONTHS

Better integration of different user account types and registration process
Rollout of the remaining national subsidiaries
UI/UX improvements
DAM integration
Integration of Marketing Automation
FURTHER CHALLENGES

Project team
- 2 internal teams
- 1 external team
- The client / marketing & IT
- No one, also not the internal ones, had ever worked together

Project management
- Two JIRA environments
- Nearly no agile experiences on client side, Scrum coaching
- The power of retrospectives!

Digital change was challenging for the client employees

Underestimation of customer feedback after launch

Translation management

Localization of contents
Become a Drupal contributor Friday from 9am

- First timers workshop
- Mentored contribution
- General contribution
QUESTIONS?

...or later at the trio-group booth!
(floor 1.2, opposite of the stairs)
PHOTO CREDITS

> Headless: https://flic.kr/p/bvHM2v
> Cheers: https://flic.kr/p/ekWsNe
> Remote control: https://flic.kr/p/8zx5nj