

The Norwegian Digitalisation Agency adapting to OSS development culture

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Stig B. Dørmænen
The Norwegian Digitalisation Agency



Introducing DigDir

- The Norwegian government's foremost tool for digitalisation of the public sector.
- Under the [Ministry of Local Government and Modernisation](#).

Main tasks include:

- Defining the premises for digitalisation and comprehensive information management in the public sector
- Coordinating digitalisation measures across organisational boundaries
- Facilitating the development of digital services for the general public, local authorities and business
- Managing and further developing national components and solutions



On the beginning of our journey towards an OSS Development culture

- Driven by a bottom up approach
- Lack of corporate policies and guidelines
- Hard to get top management to promote OSS

On the bright side:

We get A LOT of encouragement from other agencies and developers.



Our motivation

- Transparency in all aspects of software development
- Improve quality of our software
- Give back to community
- Good developers tend to prefer OSS
- Free as in beer



Context: From outsourcing to insourcing

- Part of national trend to insource software development to take control over software development
- Our new sourcing policy favours a devops culture of autonomous teams pushing changes frequently to public clouds
- Standardized services may still be SaaS.



Context: From monoliths to microservices

- Legacy monoliths need to be modernized
- Coupled by the drive towards insourcing, this is a great opportunity to take ownership of source code
- Small, autonomous services are better for reuse. OSS is therefore more relevant
- Digdir is national authority on standardization, we are in great position to ensure interoperability
- Microservices are smaller and therefore easier to understand: encourages contributions from community



Context: From one programming language to many

- A microservice architecture makes it possible to develop small services in different programming languages
- We let our developers choose which one: “CV-driven development”
 - Encourages learning
 - Re-implementation rather than re-use
 - Minimizes technical dept

OSS culture in practice: developing the National Data Portal

- 174 repositories in [GitHub](#)
- 63 services in production
- Java, Kotlin, Python, JavaScript, Go
- Apache 2 license
- Developers use their own GitHub account to encourage ownership
- We use [GitHub Flow](#) to be able to deploy continuously
- Strong focus on feature branching, PRs and code reviews makes it easy to accept contributions from community



OSS culture in practice: developing the National Data Portal

Open challenges:

- Which language to write documentation and code in
- We lack a clear understanding of different licenses
- How to hide configuration from code
- No corporate guidelines on OSS



Contributions from community

We have:

- Some published guidelines for contributors
- READMEs
- Open issue-tracker projects
- A few PRs that have made it to production

Challenges:

- Very specialized domain
- Perceived as IT Dinosaur,
- And highly bureaucratic

We invite everyone to our new «[Data-village](#)», an internet forum to discuss data and software

Contributions to community

- We reuse solutions to prevent reinventing «standard» services
 - We prefer OSS based software we either know or want to learn
- | | |
|-----------|----------|
| • NodeBB | • Drupal |
| • Strapi | • React |
| • MongoDB | • RDFLib |

Engagement:

- Raised some issues to request new feature
- Created a few PRs on wanted features

Contributions to community...

Together with the Norwegian Agency for Development Cooperation we are assessing our software as candidates for the Digital public goods standard.

Altinn 3.0: [An application development and hosting platform](#)

The Digital Public Goods Alliance
<https://digitalpublicgoods.net/>



Key takeaways

- Work with management to understand why we should do OSS development
- A formalized governance practice must be put in place to lower the bar to adopt OSS development culture
- Empower the teams in order to make choose the righth tool for the task

The Norwegian Digitalisation Agency on GitHub

- <https://github.com/altinn>
- <https://github.com/Informasjonsforvaltning>
- <https://github.com/felleslosninger>
- <https://github.com/difi> (old organization)

Other notable Norwegian agencies embracing OSS:

- <https://github.com/navikt>
- <https://github.com/digipost>
- <https://github.com/nrkno>
- <https://github.com/statisticsnorway>