

# DSDM Case Study

## National Packaging Waste Database



The National Packaging Waste Database (NPWD) is an on-line system, which tracks how much Packaging has been put into the UK market and how much Packaging Waste has been recovered or recycled. It provides an easy way for industry to prove that they are meeting their legal requirements, and this, in turn, helps Defra prove that the UK is meeting our overall EU obligations.

NPWD replaced a completely paper based system of regulation that had been open to fraud and did not provide the right information at the right time.

This £2m project was funded by the Environment Agency, Defra, Scottish Executive, Northern Ireland EA and industry. The system is now managed by the Environment Agency on behalf of all stakeholders.

**Ben Bradshaw MP**, the Minister in charge of packaging regulations at the time, described NPWD as “*...an unusual piece of Government IT in that it has been successfully delivered on time and to cost.*” when speaking to the parliamentary committee overseeing the regulations.

## A false start

The problems caused by the paper based system had been identified by the Advisory Committee on Packaging (ACP), an industry liaison group with representatives from all the stakeholders in the regime. They secured funding for the project and identified an external software development company with the right skills and experience. However the initial project management contractor's approach (Waterfall / Prince2) was causing concern for a number of reasons:-

1. Time was short. To build confidence, and start managing the business change issues in both public and private sector stakeholders, early and incremental delivery was needed. Go live of phase 1 was set for 11<sup>th</sup> April; the project started on 16<sup>th</sup> December.
2. Stakeholders did not feel engaged. As all stakeholders had contributed funding to the project and all could decide the success or failure of the project, they wanted to be part of developing the system.
3. The budget was fixed. There was already noticeable %scope creep+and some prioritisation had to be brought into the project.

Kubernetes was approached to take over management of the project and switched to DSDM to ensure stakeholder engagement, on-time and to budget delivery.

## Delivering NPWD

DSDM's emphasis on delivery to deadlines and prioritisation of requirements immediately helped the project team focus on the %must haves+for first deadline.

The annual targets and quarterly reporting cycle built into the regulations provided obvious deadlines for the rest of the project and meant that the project could set everyone's resourcing expectations clearly in advance. What was clear was that the switch to a completely electronic regulatory regime could only take place at the end of January; therefore the project team had to hit this deadline or lose a year.

On 11<sup>th</sup> April 2006 the first increment was delivered which provided a simple on-line information capture and reporting website. It came as a surprise to some on the project who were used to traditional development techniques that even a basic system like this immediately delivered one of the project's key aims, accurate and timely quarterly market information.

Getting a simple system online early and then developing it incrementally smoothed out any change management issues. It was easier to learn for people used to the paper based regime, the paper system could still be used as backup and for those without web access and any operational issues were sorted out early before the full switch.

## How did it happen?

The project started on 16 December 2005; the first stage was delivered by 11th April 2006, additional functionality delivered on 3rd July and 1st October with the switch away from paper completed on 1st February 2007. This was despite a number of factors which could have had a major impact upon the tight delivery deadlines:

- The diverse range of stakeholders presented major challenges. Not only were there 12 of them, drawn from both the public and the private sector, but they had very different ways of working and perceptions of risk. DSDM's focus on collaboration, facilitation and stakeholder engagement helped ensure that everyone worked together and any issues were dealt with quickly.
- The project was impacted by a major office move and complete change of team by one of the key project stakeholders around the time the system was due to go live. An agile approach was essential to cope with changing requirements and personnel.
- Resistance to the iterative and appropriate level of rigour approach of DSDM for the project had to be overcome. Though necessary in order to deliver the project on time, DSDM presented cultural difficulties for one of the key stakeholders, used to the traditional approach of working to a detailed upfront specification and Prince2 project bureaucracy.
- It became clear that the requirements for a major part of the system were more complex than first thought and were changing as part of the review of the regulations. The project also realised that the only sensible time for this to go live was 1<sup>st</sup> September, at the time only 3 months away. Using DSDM techniques it became clear that this functionality was a should have rather than a must have for delivery and so was re-scheduled for the following year.

## A Successful Project

Despite the enormous challenges and potential pitfalls, all phases of NPWD were delivered on time and to budget. There were no major and few minor defects in the system.

The phase 1 system was used by over 80% of the waste re-processors and exporters during 2006 and 100% during 2007 and since. The feedback has been overwhelmingly positive. All producer responsibility programmes are now being delivered this way, including the new regulations around batteries.

For this project, particularly since there was initially a wariness between some of the stakeholder groups, a DSDM project facilitator was essential to bring people together and keep them working together to bring in the project on time and in budget.

Kubernetes project facilitator successfully created a distinctive project team culture, which proved extremely resilient even when it was challenged by external events or individual behaviour. Because of this, when problems emerged, the commitment of team members to the process meant that the problems were overcome. Even though the project's formidable overall target of implementing ~~an~~ electronic evidence of reprocessing+ and doing away entirely with paper could easily have been demoralising, in fact it proved highly motivational, such was the team spirit he was able to foster.

In turn, Kubernetes believes that they could not have delivered this project using any approach other than DSDM

## Testimonials

*"This project would not have been delivered without Kubernetes' involvement."*

**John Turner, Chair, Advisory Committee on Packaging**

*"The NPWD project brought together a large number of partners from the public and private sectors, with vastly different cultures, ways of working and perceptions of risk. Kubernetes quickly recognised and dealt with the potential problems, and their [DSDM] approach and facilitation skills were instrumental in ensuring that all quality, time and budget requirements were met."*

**Keith Stonell, NPWD Project Executive, Environment Agency**

## Links

**DEFRA/ACP** <http://www.defra.gov.uk/Environment/waste/topics/packaging/index.htm>

**NPWD** <http://npwd.environment-agency.gov.uk/>

**Kubernetes** <http://www.kubernetes.co.uk/>

**DSDM Consortium** <http://www.dsdm.org>

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