

# Innovative approach for project viability: from a diversity of business models to harmonized and scalable national services

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## ABSTRACT

Within the context of a national-level project on Data Life-Cycle Management (DLCM), we aim to present in this workshop the methodology our team applied for developing service business models for serving the researcher community. Based on this experience, working groups will consider concrete cases of long-term data management, which then will be shared among participants to discuss the challenges and opportunities brought by the proposed methodology.

## Keywords

Data life-cycle management; research data management; service business modeling; Swiss Higher Education Institutions

## 1. DLCM PROJECT

The DLCM project [1] is a collaborative initiative regrouping eight Swiss Higher Education Institutions (HEI)<sup>1</sup>. The primary objective is to provide sustainable services to implement research data lifecycle management in Switzerland. Those services target the efficient management of active research data, and aim at ensuring publication, long-term reference and preservation of data subsets selected by researchers. The project is financially supported by each participating institution and by the Swissuniversities' program P2/P5 (until July 2018, and 2020 if an extension is afforded). At the term of the project, services should however become self-financed. That's why there are strong efforts put on viability methodology based on strategic management and lean startup method for improving the chance of having sustainable services on the long term, which is essential for services concerned with long-term preservation of research data.

## 2. VIABILITY METHODOLOGY

To assess the viability of the future services, we applied a customer-centric approach based on Lean Startup principles by Eric Ries [4], in combination with industry reference tools, namely the Business Model Canvas (BMC) and the Value Proposition Canvases (VPC) created by Osterwalder and Pigneur [2,3]. The VPC aims mainly to explain how to create

value for the customer, while the BMC explains how to create value for the legal entity delivering the service. The Value Proposition Canvas consists of two parts: (i) the Customer Segment, that lists jobs (what the customer tries to achieve) as well as pains (risk/barriers preventing a proper job execution) and gains (benefits from achieving/exceeding customer's objectives). (ii) the Value Map, that defines a suitable product/service relieving the customer from some of the pains that have been identified and that creates gains. Once defined, the Customer Segment and the Value Map are integrated into the Business Model Canvas and forms 2 out of its 9 building blocks. Here are the 7 remaining ones:

- Customer Relationships (i.e. self-service or personal assistance and the strategy to get, keep and grow a customer base)
- Distribution channels (i.e. downloads, software integration, etc.)
- Revenue Streams (i.e. subscription fees, licensing, etc.)
- Key Resources (i.e. human, physical and financial)
- Key Activities (i.e. to operate the services)
- Key Partnerships (e.g., joint ventures)
- Cost Structure (i.e., cost models to run the services)

In the context of the DLCM project, starting with a customer-centered approach based on the Value Proposition Canvas, several services have been identified in relation to the perceived needs and their match with the different DLCM steps, namely: Training and Consultancy, Electronic Laboratory Notebook (ELN) as well as a Long-Term Preservation Services. For each of these services, a corresponding business model has been elaborated and tested through a validation process. As a final consolidation phase, the resulting business models are assembled to yield a global service covering the whole data lifecycle.

## 3. CHALLENGES & OPPORTUNITIES

We initiated the business-modeling methodology in the fall of 2016 and intend to get the overall service consolidated by Autumn 2017. To reach this goal, several challenges of different natures must be faced: the geographical distribution of the service providers complicates the consolidation of the business models; having to work at a national level across different regions, each with their own languages and culture

<sup>1</sup> There are two Federal Institutes of Technology, four Universities, one University of Applied Science, and SWITCH, a foundation providing ICT services to HEIs

(federal context); adopting the same tool, templates and vocabulary to share the progress of individual business models and to validate important milestones; finding the right balance between economic and research practice interests.

However, once all partners adopt a common methodology, a more coordinated view of what is happening regarding data lifecycle management in different institutions can emerge, with a direct positive impact on the target audiences' needs.

#### **4. AIM OF THE WORKSHOP**

With this background experience gained at a national level from the DLCM project, the workshop aims at: (1) presenting the application and outcomes of this viability methodology from 2015-2020 with a focus on the outcomes of the long-term preservation service; (2) inviting participants to work in small groups to apply the methodology (with the set of tools) on concrete cases of their choices regarding long-term preservation; (3) opening a general discussion so that participants can express their insights and opinions on the methodology based on their use cases.

#### **5. CONTENT OF WORKSHOP**

The workshop is organized in two parts of 90 minutes. The first one and a half hour will start after an introduction round with a more detailed overview of the viability methodology as well as an in-depth introduction into the DLCM project. Then, participants will have time to take a closer look into the already existing Business Models elaborated within the DLCM project, with a focus on consultancy, ELN/LIMS as well as archiving services. Having taken notice of those existing services, participants will have the opportunity to share their opinion and discuss about the service description.

The second one and a half hour will be dedicated to the concrete application of the methodology on a given or free use cases. In this context, participants are asked to work in small groups. In the end, they will have the opportunity to present their work to the other groups.

#### **6. TARGET AUDIENCE**

This workshop is especially designed for administrators and practitioners of digital preservation as well as information professionals who deal with service design as well as everyone interested in service business models practices.

#### **7. ACKNOWLEDGMENTS**

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#### **8. REFERENCES**

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