

Better Services to Farmers – A radical service innovation

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Executive Summary

In April 2008 the Victorian Government launched the Future Farming Strategy (DPI 2008a). This Strategy was the catalyst for a review of the way the Department of Primary Industries (DPI) delivered services to farmers. As a result, in April 2009 DPI publicly launched the 'Better Services to Farmers (BSTF)' strategy. The BSTF entailed the development of a new model for providing services to farm businesses (DPI 2008b).

The aim in this paper was to describe an approach to classifying innovations to a service that could assist managers in DPI to anticipate the organisational implications of BSTF for their program. The approach was an adaptation of Henderson & Clark's (1990) framework for classifying product innovations. Changes to a service are classified into four types of innovations where each type of innovation has different consequences in terms of its affect on organisational competencies, processes, policies, structures and culture.

Given FSV's leadership in implementing BSTF we have used FSV services as our example in this paper. However, the concepts applied here are equally applicable to other DPI services.

Our analysis has revealed that the introduction of the new service model embodied in the BSTF is a radical service innovation for FSV in particular and DPI as a whole. The implementation of a radical innovation can provoke severe disruption in an organisation by rendering existing competencies, processes, policies, structure and culture obsolete or irrelevant. Hence, the successful implementation of radical innovations requires an organisation to acquire new competencies, develop new processes and policies, and review its structure and culture.

Reconciling and integrating these new processes, policies and structures with existing processes, policies and structures will be a complex task. For some staff these changes may also challenge social values that are

embedded in the culture of their programs. This will, inevitably, create tension in the organisation. Hence, implementing BSTF will be time consuming, demanding of resources, and will require careful and sensitive planning to support the transition to a new way of operating. This is not the kind of innovation that can be implemented quickly or cheaply.

BSTF is likely to take some years to implement within FSV programs and across DPI as a whole. It will require both senior management and program managers in DPI to be skilled in all aspects of organisational change, or at least have access to relevant specialist advice. Such skills would include:

- A thorough understanding of the role of executive and senior management in leading organisational change and the capacity to undertake that role.
- A comprehensive knowledge of the key ingredients for organisational transformation including the creation, management and role of change agent teams.
- A thorough understanding of the distinction between capacity building and change management.
- An appreciation of the key factors influencing organisational structure, the limits to what restructuring can achieve, and how to restructure organisations effectively.
- Knowledge of organisational culture, management actions for changing organisational culture, criteria for selecting actions and how to implement them.

Such skills are not acquired merely from experience. Effective implementation of BSTF may require substantial investment in building the competencies of senior management and program managers in DPI.

These findings are consistent with the findings from Howden's (2008) review of service approaches and documents describing plans to implement the new service

model under BSTF. Discussions with FSV managers and staff also supported these findings.

While the nature and extent of organisational changes entailed in BSTF are considerable, FSV does possess internal capabilities aligned with the new service model. For instance, some staff have experience in developing and delivering services with external partners. Their knowledge and experience could contribute to the development of criteria and processes to identify and manage service delivery by commercial and community service providers. Their knowledge and experience could also prove valuable in resolving inconsistencies between existing organisational processes, policies and structures and those required for the new service model. However, while these capabilities exist they may not be present on a scale sufficient to cope with the nature and extent of organisational changes entailed in BSTF.

In conclusion, the approach described in this paper could be used by program managers to identify the degree of disruption a service innovation, such as the introduction of BSTF, may create for their program. This knowledge would assist managers to form realistic expectations as to how quickly change can be achieved, and how costly it will be.

To the degree that BSTF presents as a different type of innovation to different programs, senior management in DPI should take this into consideration when forming expectations about, and planning, the scope and rate of change in each program.

The analysis presented in this paper is not intended to be definitive. It is intended to illustrate the application of the approach and demonstrate how managers can draw on their knowledge, skills and experience to use it to help implement the new service model.

Introduction

Implementing better services to farmers

Following a review of DPI services, the Department publicly launched the 'Better Services to Farmers (BSTF)' strategy in April 2009. The strategy provided a new set of principles to underpin the delivery of services to the agricultural sector by the Department. These were (DPI 2008b):

- Target DPI services to achieve greatest benefit.
- Focus on public benefit with industry funding supporting industry benefits.
- Determine if DPI is best to deliver the service or should it seek delivery through other parties.
- Avoid competing with effective private providers or community groups.
- Grow the overall capability across sectors and service providers.
- Address risks identified in the review.

To give effect to these principles a new service model was developed. The new model involves:

- The use of market research to help guide the setting of priorities for outcomes and investment decisions.
- A new design process for choosing a mix of activities to achieve the policy objectives set for a service.
- A collaborative approach to service delivery.

As a result, the new service model entails a fundamental shift in the way DPI plans and implements services to farm businesses (DPI 2008b). Implementation of the new service model will involve a range of changes to the role, function and structure DPI (DPI 2008b).

Farm Services Victoria (FSV), a division of the Department of Primary Industries (DPI), provides a range of public services to Victorian farmers. These include advisory and regulatory services in sustainable land and water management, management of pest plants and animals,

agricultural industry development, and biosecurity and emergency management. FSV has over 800 employees throughout Victoria who deliver these services (DPI 2009b).

Given FSV's prominent role in service provision, the implementation of the new service model will specifically involve a range of changes to the role, function and structure of FSV (DPI 2008b). Given this we have used FSV as the focus for analysis in this paper.

Supporting the new service model

The organisational behaviour literature (Abernathy & Clark 1985; Hunter 2004; Kaine et al 2007) has shown that success in implementing fundamental changes to organisations depends on:

- Careful planning;
- investment in building new competencies, processes, policies and structures; and
- the development of significant capability in change management to handle the tensions that inevitably arise in the period of transition from the accepted to the new.

Managers will be expected to implement the new service model incorporating the BSTF principles. The degree of disruption the shift to the new model will cause for managers will depend on the extent to which the principles that underpin the current service models differ from the principles that underpin BSTF. Consequently, it is imperative that managers are able to identify the degree of change the shift may create at the outset and formulate their expectations and plans for change accordingly.

While program managers are recognised as highly experienced, many have a limited familiarity with making

the fundamental changes to organisational competencies, processes, policies, structures and culture required to apply the new service model. For instance:

- Relatively few managers routinely use formal market research techniques to form priorities.
- Most FSV managers are highly experienced either in the delivery of programs that promote voluntary change among farmers, or in the delivery of programs that enforce compulsory change among farmers, but usually not both.
- Few FSV Managers are experienced in forming partnerships with commercial or community organisations to deliver services to farmers.

Consequently, FSV is committed to providing managers with tools to support the implementation of BSTF. To this end “State of the Art Services to Farm Businesses” has funded Practice Change Research to develop two concept papers to support FSV managers. The papers are intended to describe practical tools that could help managers with implementation of the new service model.

The first paper (Keeble et al 2009) described a tool that could assist FSV managers to make decisions about sharing service delivery with a commercial or community provider. In principle, the tool could be used by managers to identify and assess the potential risks entailed in wholesaling service activities and devise management responses accordingly.

In this, the second paper, we describe and illustrate an approach which could be used by managers to identify the changes they may need to make in order to implement the new service model. The nature and extent of the changes a manager will have to put into action will depend on the degree of disruption the shift to the new service model creates for their service. For example:

- Some managers may only have to plan and execute changes in regard to the skills and knowledge of staff.
- Others may have to alter processes and implement new policies.

- Some may be required to restructure their teams and operations.
- Some may face the challenge of modifying the culture of their programs and teams.

In principle, the approach we describe in this paper could be used by managers to:

- Identify the nature of change they face in implementing the new service model for their program; and
- anticipate and assess the potential risks involved.

In doing so, the approach could help managers develop appropriate expectations as to how quickly change can be achieved and formulate plans accordingly.

In the next section we describe an approach to revealing the nature and extent of organisational changes involved in introducing the new service model. The approach is based on an adaptation of a framework proposed by Henderson & Clark (1990) for classifying product innovations. The approach involves:

- Classifying what type of service innovation a new service model represents.
- Making predictions about the nature and extent of organisational change (competencies, processes, policies, structure and culture) based on the type of service innovation the new service model represents.

In subsequent sections we use the approach to classify the new service model embodied in BSTF into a type of service innovation. We then make predictions about the nature and extent of organisational change implementing the new service model would entail. These predictions are illustrated drawing on examples from the FSV dairy, horticulture and grains programs.

We have used FSV services as the example for analysis in this paper. However, the concepts applied here are equally applicable to other DPI services.

The analysis presented in this paper is not intended to be definitive. It is intended to illustrate the application of the approach and demonstrate how managers can draw on

Predicting organisational change

Introduction

Henderson & Clark (1990) developed a means for systematically identifying the nature and extent of change an innovation may present for an organisation. We adapted this research to apply to organisations in the public sector that introduce innovations in the services they deliver to the public. Applying this approach can highlight the unique consequences the implementation of an innovation in public policy will have for a public sector organisation. In doing so this approach is an important tool for identifying challenges that may arise and create barriers for managers to implement BSTF and achieve their objectives.

The innovation in the context of BSTF is the new service model based on the principles of BSTF. Specifically, the innovation entails:

- The introduction of principles relating to using market research in setting priorities for outcomes and investment;
- choosing activities to change farmer behaviour; and
- partnering with commercial and community organisations to perform some service activities.

Applying Henderson & Clark's (1990) approach involves a new way of viewing services where a service is treated as a system made up of components and the relationships between them, termed architecture.

their knowledge, skills and experience to use it to help implement the new service model.

Changes to a service can be classified into types of innovations depending on the extent to which the change involves altering components, architecture or both. The four types of innovation are incremental, modular, architectural and radical.

Each type of innovation triggers different degrees of change for an organisation. This means the organisational issues that need to be considered in implementing the innovation will differ, depending on the type of innovation. Therefore by classifying the type of innovation the service change entails, DPI and FSV can identify the challenges that may arise from, and what they may need to address to implement, the new service model.

Next we define the service components and architecture and then the guidelines for classifying changes to services as one of the four types of innovation. We then apply this thinking to FSV services.

A new view of FSV services

From a systems perspective a service can be conceived as consisting of:

- A service concept;
- a set of components that embody a corresponding set of component principles; and
- an architecture and associated set of architectural principles (see Table 1).

For FSV the service concept is a generic description of the way in which a service changes farmer behaviour to achieve a policy objective. For instance, an incentive program is a generic way of describing an activity that changes the behaviour of farmers through the provision of

grants to farmers for the adoption of approved technologies or practices.

A service can be broken down into a number of components. The components of a service are its tangible elements and include activities, rules, processes, policies, and so on. Each component is underpinned by a component principle which describes the core purpose or function that component is designed to achieve. For example, a list of approved practices would be a component of an incentive program. The component principle underpinning that list might be that adoption of the approved practices will contribute to achieving the policy objective. Other components of an incentive program include funds to allocate and eligibility rules.

The way the components fit together to form the service is described as the architecture of the service. This architecture is also underpinned by a set of principles. For example, the components of an incentive program are arranged in a way that payments are awarded based on eligibility rules that are tied to the list of approved practices. Hence, the architecture of an incentive program may be described as reward management. The architectural principles involved here might include rewarding farmer contribution to a policy objective, voluntary participation, and the sharing of costs between farmers and the government.

Table 1: Elements of service innovations

	Definition	Illustration
Service Concept	A generic description of the way that a service changes behaviour to achieve a policy objective.	Incentive Program
Components	The individual activities, rules, processes, policies and procedures that form the service.	<ul style="list-style-type: none"> • List of approved practices • Funds to allocate • Eligibility rules
Component Principles	The fundamental principles that guide the design and functioning of a component.	Adoption of approved practices will contribute to achieving the policy objective
Architecture	The way that the components fit together and function to form the service.	Reward management
Architectural Principles	The fundamental principles that underpin the arrangement and combined functioning of the components that form the service.	<ul style="list-style-type: none"> • Rewarding farmer contribution to policy objectives • Voluntary participation • Cost sharing between farmers and government

Types of innovations

Describing a service in terms of components and architecture provides a basis for classifying changes to services into four types of innovations. Each type of innovation is distinguished by the extent to which the component principles and architectural principles of the service are modified or superseded when the service is changed.

A change to a service that leaves the component principles or architectural principles substantially the same is termed an incremental innovation.

A change that means the component principles are heavily modified or superseded, while the architectural principles remain substantially the same, is termed a modular innovation.

A change that means the architectural principles are heavily modified or superseded, while the component principles remain substantially the same, is termed an architectural innovation.

Finally, a change that means both the component principles and the architectural principles are heavily modified or superseded is termed a radical innovation.

The differences between the four types of innovation are shown in Figure 1. It can be seen from the Figure that the four types of innovation characterise a continuum of change in two dimensions.

Organisational implications

Research on organisational behaviour has shown that the successful implementation of each type of innovation has different organisational implications (Abernathy & Clark 1985). For instance, an incremental innovation involves minor modifications to a service. Such modifications usually build on the existing skills and knowledge (competencies), processes, policies and structures in an organisation and so are fairly simple to implement. An example of an incremental innovation could be changes in the list of approved practices eligible for support in an incentive program.

A modular innovation involves substantial modifications to a service component. Such modifications may mean the competencies associated with the component may need to be upgraded or replaced. However, competencies, processes and policies associated with other components of the service are unchanged. Implementation is more difficult but any disruption is confined to a particular part of the service and the organisation.

An example of a modular innovation could be replacing the list of approved activities with an index of environmental change for an incentive program. This new component introduces a new component principle around the index directly measuring progress towards an environmental outcome. This supersedes the existing component principle around adoption of approved practices contributing to an environmental outcome. Importantly however, the architecture and architectural principles of the incentive program remain unchanged. Thus this change is a modular innovation.

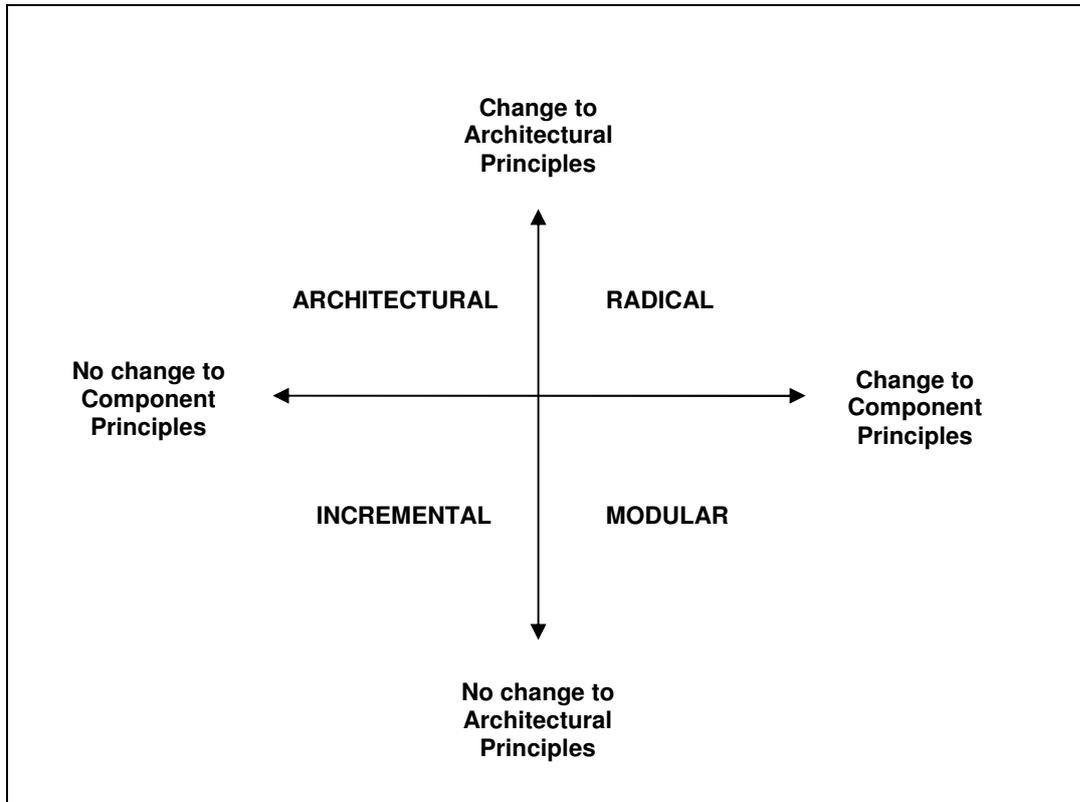


Figure 1: Types of service innovations

Adapted from Kaine & Higson (2006)

An architectural innovation involves substantial modifications to the architecture of a service. The architecture of a service is embedded in the processes, policies and structure of the organisation. Hence, an architectural innovation usually entails modifying or replacing organisational processes, policies and structures.

An example of an architectural innovation could be a shift from a traditional incentive program to a program based around a tender scheme. Many of the components of an incentive program – eligibility criteria, list of approved practices - are unchanged. The architectural principles, however, change from creating public benefit by offering similar rewards to any farmers that implement an approved practice to maximising public benefit by offering differential rewards to farmers through a tender process based on differences in their willingness to implement an approved practice. Implementing this change in principle will require changes in organisational processes such as the methods used to allocate grants to farmers.

A radical innovation involves substantial modifications to both the components and the architecture of a service. Consequently, the introduction of radical innovation often renders many of the competencies, processes, policies and structures in an organisation obsolete, and may even challenge key values in the organisational culture.

The implementation of radical innovations requires organisations to acquire new competencies, install new processes and policies; form new structures and even change their culture. This may be difficult for those in the organisation who are accustomed to existing processes, policies and structure. They may not appreciate that change is necessary and should be supported (Henderson & Clark 1990).

An example of a radical innovation could be a shift from a traditional incentive program to a service supporting a cap

and trade scheme to control nutrient emissions from agriculture. Such a shift would render many of the components of an incentive program – eligibility criteria, list of approved practices – obsolete. They would be replaced by components such as trading rules, emission measurement, rules for allocating emission permits and an emissions cap.

The architectural principles would also change. For example, the principle of creating public benefit by offering similar rewards to any farmers that voluntarily implement an approved practice might change to maximising public benefit by using a compulsory cap on emissions to impose differential costs on farmers based on differences in the abatement costs they face. Implementing this change in principle would require changes in organisational processes, structures and even culture.

The implementation of architectural and radical innovations requires the organisation to make significant investment in resources, planning and change management to handle the transition from the old to the new. Hence, implementing these two types of innovations is extremely disruptive, expensive and time consuming for the organisation.

In conclusion, being able to classify changes to services into innovations of different types enables an organisation to better anticipate the nature and extent of disruption the organisation must deal with in order to successfully implement the change. For more detail see Table 2 which includes a definition of each type of innovation and the organisational implications associated with each type.

Summary

In this section we have briefly described an approach to identify the nature and extent of organisational change associated with implementing different types of service

innovations. In principle, this approach can be used to classify changes to DPI services into one of four types of innovations: incremental, modular, architectural and radical. The resulting classification would then allow us to predict the organisational consequences associated with implementing changes to farm services.

In the next section we use this approach to classify the new service model in BSTF into one of the four types of innovations using a FSV service as an example. The resulting classification is then used to predict the nature and extent of the organisational change managers may have to contend with in order to implement the new service model.

Table 2: Types of service innovations and organisational implications

Change to Component Principles	Change to Architectural Principles	Type of Innovation	Implications
-	-	<p>Incremental</p> <p>Minor changes to the existing service that align with the existing principles of the service.</p>	<ul style="list-style-type: none"> • Changes align with existing competencies & way of operating. Hence builds on existing skills, experience & knowledge (competencies); processes & policies; and structures of the organisation. • If new competencies are required they are likely to be sourced from within the organisation. • Innovation causes minimal disruption to the organisation.
✓	-	<p>Modular</p> <p>Major changes to a component of the service that align with the existing architectural principles.</p>	<ul style="list-style-type: none"> • Require significant changes to one aspect of the operation while other aspects are relatively unaffected. • Build on some areas of existing competencies, processes & policies, and structures of the organisation. • Also involve development of new competencies to implement the new components, i.e. training. • New competencies may have to be sourced externally, i.e. hiring new staff, engage consultants. • Also involve development of new processes & policies linked to the new components • Innovation may lead to changes in the roles of groups within the organisation that are involved in the implementation of the new components. • Innovation causes disruption for those areas in the organisation involved with the changing components.
-	✓	<p>Architectural</p> <p>Major changes to the architectural principles of the service. This may involve some changes to components though they align with existing component principles. Thus innovation involves existing components arranged in a new way</p>	<ul style="list-style-type: none"> • Innovation compatible with competencies related to individual components yet incompatible with competencies related to the architecture of the existing service. • Require changes in competencies that are embedded in existing structures and processes. • New architectural competencies may need to be acquired from an external source. • May require establishment of new relationships and communication channels between functional groups within the organisation to reflect the new architecture. • Innovation likely to cause serious disruption across the organisation requiring considerable time and resources to successfully implement
✓	✓	<p>Radical</p> <p>Major changes to both component principles and architectural principles of the service. Innovation radically changes the design and operation of the existing service.</p>	<ul style="list-style-type: none"> • Innovation incompatible with existing competencies hence creating significant competency gaps. • Organisation is most likely to use external sources with specialist knowledge, skills or experience (competencies) related to aspects of the innovation to develop the required competencies internally. • Likely to involve substantial training and staff changes. • Require development of new processes, policies and structures to deliver innovation. • May require change to roles, responsibilities and relationships between functional groups within the organisation to be compatible with the innovation. • Innovation is likely cause extreme disruption throughout the organisation requiring considerable time and resources to successfully implement.

BSTF as a service innovation

Introduction

As an organisation FSV specialises in changing the behaviour of farmers in order to achieve public policy objectives. For example, FSV offers extension programs to assist farmers to voluntarily change their behaviour by adopting new agricultural technologies and farming practices that contribute to a policy objective such as reducing nutrient emissions from agriculture. Technically speaking then, FSV performs a service for government by implementing programs that change the behaviour of farmers.

Broadly speaking, FSV services can be treated as consisting of three broad decision domains. The first domain concerns setting priorities as to *which* farmer behaviours will be targeted to achieve policy outcomes and objectives. Since this concerns decisions about what to spend resources on, we have termed this domain investment choice for an FSV service.

The second domain is choosing activities, or a mix of activities, to change farmer behaviour. The programs that FSV implements to change farmer behaviour involve a range of activities including extension, enforcement, research, provision of incentives, collection of charges, and so on. Since this concerns decisions about *how* to change farmer behaviour, we have termed this domain design choice for an FSV service.

The third domain is collaborating with private and community service providers to conduct the activities that will change farmer behaviour to achieve the policy objectives. Since this concerns decisions about *who* will deliver the activities, we have termed this domain delivery choice for an FSV service.

These three domains are consistent with the service delivery system plan for BSTF (DPI 2009a).

Broadly speaking, the new service model involves change in all three of these domains. The use of market research to help set priorities as to which farmer behaviours will be targeted to achieve policy outcomes and objectives affects investment choice.

The use of market research and other information to choose activities, or a mix of activities, to change farmer behaviour affects the design choice.

Collaborating with private and community service providers to conduct the activities that will change farmer behaviour to achieve the policy objectives affects delivery choice.

In the following analysis we classify the set of changes involved in the new service model into one of the four types of innovation. This then allows us to make predictions about the nature and extent of organisational change program managers may face in implementing the new service model.

Method

To classify the set of changes involved in the new service model as a type of innovation requires assessing in detail whether the component principles and architectural principles that underpin the investment, design and delivery choices of an FSV service will be heavily modified or superseded. This entails firstly identifying the components, component principles, architecture and architectural principles of existing FSV services. Then secondly, comparing them with the components, component principles, architecture and architectural principles of FSV services as they might look in the future.

Conducting such an exercise would be a major undertaking since FSV delivers a range of quite diverse services – meaning FSV services differ widely in their components, architecture and associated principles. Consequently, to illustrate the use of our approach we chose to analyse a generic example of an FSV service.

We have attempted in our example to identify the components, architecture and associated principles that are fundamental to most, if not all, services in FSV; and how these might change under the new service model. We have done this based on our reading of program documents, the BSTF strategy and related documents, and discussions with a number of FSV program managers and staff.

In the next section we present the components, architecture and associated principles of our generic service and how these may change under the new service model.

The generic service

The fundamental components, architecture and associated principles that make up the generic service are presented in Table 3.

In simple terms, investment choices in regard to which farmer behaviours the service will seek to influence are identified using key criteria based around:

- Creation of public benefit;
- co-investment by industry and other organisations; and
- the priorities of co-investors.

With regard to design choice, we have assumed that the service largely relies on using one particular activity (enforcement for instance), or a set of activities that are underpinned by similar principles (extension and incentives for example).

When it comes to delivery choice, public provision is the rule as this allows DPI and the FSV manager to control the

content and delivery of activities, and supports evaluation, accountability and so on. Partnerships with commercial or community service providers occur from time to time based on taking advantages of opportunities that arise from personal relationships.

In simple terms the architecture of this generic service is public provision of a specialised activity to change the behaviour of farmers. For example, a program in FSV might change farmers' behaviour in regard to pest management by specialising in providing enforcement of regulations. Another program might change farmers' behaviour in regard to natural resource management by specialising in providing extension and distributing incentives.

In Table 3 we have highlighted in **red** the component principles and architectural principles in the generic service that are modified or superseded by the introduction of the new service model.

Table 3: FSV Generic Service

Service Concept	
Changing farmers behaviour to achieve policy objectives using primarily one activity (e.g. extension)	
Service Components	Component Principles
<p>1. <u>Investment Choices</u>: What behaviours to change?</p> <ul style="list-style-type: none"> - Funds - List of desirable behaviours - List of agricultural technologies and farm practices that embody the desired behaviour change - Investment criteria - Priorities of co-investors - Rules for allocation of funds - Investment committees and approval processes - Payment systems 	<ul style="list-style-type: none"> - Performance of desirable behaviours by farmers will contribute to the achievement of public benefit - Public investment should be directed toward maximising the creation of public benefit to increase total benefit to the Victorian community - Some desirable behaviours will create private benefits, others will create private costs (e.g. adoption of best practices, compliance with effluent regulations) - Farmers motivation to implement desired agricultural technologies and farm practices will depend on the private benefits they generate - Farmers motivation to avoid using desired agricultural technologies and farm practices will depend on the private costs they generate - Investment choices depend on supply of agricultural technologies and farm practices that embody the desired behaviour change - Investment costs should be shared between government and industry in proportion to the public and private benefit generated by the behaviour change
<p>2. <u>Design Choices</u>: How to change behaviour?</p> <ul style="list-style-type: none"> - List of agricultural technologies and farm practices that embody the desired behaviour change - Development of behaviour change activities and associated materials for primary activity, e.g. field days - Quality assurance processes, e.g.: <ul style="list-style-type: none"> • course accreditation • publication review • communication policy - Evaluation and performance measures - Legislative responsibilities - Administrative procedures 	<ul style="list-style-type: none"> - Change in farmer behaviour will be achieved using activities based on similar behaviour change principles (e.g. extension) - The treatment of farmers' rights as embodied in the selected activities is consistent with policy priorities. Using extension as an example, achievement of public benefit by voluntary changes in farmers' behaviour implies farmer's rights have priority over the rights of the community. - Farmers' circumstances are consistent with the behaviour change principles underpinning the primary activity Using extension as an example these may be: <ul style="list-style-type: none"> • awareness of agricultural technologies and farm practices will accelerate adoption • developing farmers skills and knowledge about agricultural technologies and farm practices will result in successful adoption • media and experiential learning are the most effective ways of promoting awareness and improving farmers' skills and knowledge - Standardised quality assurance procedures and oversight will avoid mistakes and ensure alignment with DPI policies in regard to publications, external communication etc. - Success is measurable using indicators of behaviour change specific to the primary activity - Service design can be improved by monitoring farmer participation and opinions on activities - Intelligence for service evaluation and improvement can be gathered and used to generate recommendations

<p>3. <u>Delivery Choices</u>: Who performs the behaviour change activities?</p>	<ul style="list-style-type: none"> - Recognition by farmers that activities are supplied by government - Staff require specialised competencies to implement activities and manage networks - Opportunistic partnerships based on personal relationships with government, community and commercial service providers - Activities redesigned to accord with partner preferences and competencies - Delivery by FSV using standard procedures and oversight will provide control in regard to: <ul style="list-style-type: none"> • alignment of delivery with DPI policies and standards • content, quality and timing of service delivery • gathering of intelligence for evaluation, improvement and implementation of subsequent recommendations • branding and attribution of intellectual property
<ul style="list-style-type: none"> - List of behaviour change activities - Service brands - Staff with competencies in the design and implementation of the primary activity - Plans for joint delivery with partners - List of partner preferences and competencies - Dissemination networks - Administrative and reporting procedures 	
<p>Service Architecture</p>	<p>Architectural Principles</p>
<p>Public provision of a specialised activity to change the behaviour of farmers</p>	<ul style="list-style-type: none"> - Ensure achievement of public benefit by using public service providers to implement primary activity (e.g. public extension to accelerate adoption of products and practices by farmers) - The scope of investment and design decisions will be limited to circumstances that are consistent with the treatment of farmers' rights as embodied in the primary activity - The scope of investment and design decisions will be limited to circumstances that satisfy the behaviour change principles underpinning the primary activity - Public service delivery will provide control in regard to: <ul style="list-style-type: none"> • investment, design and delivery • allocation of staff with requisite competencies to priority activities for FSV • implementation of processes to support FSV accountability for expenditure - FSV investment in competencies of FSV staff builds capability in sector as a whole

The BSTF service

The fundamental components, architecture and associated principles that might make up a typical BSTF service are presented in Table 4.

Investment choices in regard to which farmer behaviours the service will seek to influence are now identified using key criteria based around:

- Creation of public benefit;
- an understanding of farmer attitudes and behaviour (termed market research); and
- co-investment by industry and other organisations.

With regard to design choice, the service now uses a mix of activities to change the behaviour of farmers rather than relying on one particular activity. The mix is determined by a number of criteria including consideration of the justification for government intervention, market research and feasibility conditions. Consequently, the service now conducts a range of activities that are underpinned by different behaviour change principles.

When it comes to delivery choice the first choice is commercial or community provision. DPI and the FSV managers seek to control the content and delivery of activities, and obtain data to support evaluation, accountability and so on through the use of contracts. Relationships with commercial or community service providers are common and are supported by standardised rules, processes and policies.

In simple terms, the architecture of this generic BSTF service is the public, commercial and community provision of a mix of activities to change the behaviour of farmers. For example, a program in FSV might change farmers' behaviour in regard to pest management by providing enforcement of regulation, paying a commercial provider to manage a program offering incentives to community groups to eradicate pests, and using

a tender scheme to offer incentives to farmers to monitor and report pests in their district.

Another program might change farmers' behaviour in regard to natural resource management by paying commercial providers to deliver extension activities, partnering with a community organisation to manage an incentive program, and enforcing regulations in regard to farm layout, capital works and plant and equipment.

Having described the components, architecture and associated principles of the generic and BSTF services, we are now able to compare the two and determine what type of innovation the new service model represents for FSV.

In Table 4 we have highlighted in **green** the new components, component principles and architectural principles that are introduced under the new service model.

Table 4: FSV BSTF Service

Service Concept	
Changing farmers behaviour using a mix of activities, and building capacity in private providers to change producers behaviour, in order to achieve policy objectives	
Service components	Component principles
<p>1. <u>Investment Choices</u>: What behaviours to change?</p> <ul style="list-style-type: none"> - Funds - List of desirable behaviours - List of agricultural technologies and farm practices that embody the desired behaviour change - Market research - Investment criteria - Priorities of co-investors - Rules for allocation of funds - Investment committees and approval processes - Payment systems 	<ul style="list-style-type: none"> - Performance of desirable behaviours by farmers will contribute to the achievement of public benefit - Public investment should be directed toward maximising the creation of public benefit to increase total benefit to Victorian community - Some desirable behaviours will create private benefits, others will create private costs - Farmers motivation to implement desired agricultural technologies and farm practices will depend on the private benefits they generate - Farmers motivation to avoid using desired agricultural technologies and farm practices will depend on the private costs they generate - Size of public benefit depends on number of farmers who will change their behaviour and adopt the desired agricultural technologies and farm practices - Investment choices will depend on market research identifying the potential number of farmers who will change their behaviour - Investment choices depend on supply of agricultural technologies and farm practices that embody the desired behaviour change - Investment costs should be shared between government and industry in proportion to the public and private benefit generated by the behaviour change
<p>2. <u>Design Choices</u>: How to change behaviour?</p> <ul style="list-style-type: none"> - List of potential behaviour change activities - Criteria for choosing mix of activities - List of agricultural technologies and farm practices that embody the desired behaviour change - Development of chosen mix of activities - Quality assurance processes, e.g.: <ul style="list-style-type: none"> • course accreditation • publication review • communication policy 	<ul style="list-style-type: none"> - Change in farmer behaviour will be achieved using a mix of activities based on a range of behaviour change principles - A mix of activities are selected based on capacity to achieve desired behaviour change - The treatment of farmers' rights as embodied in the selected activities is consistent with policy priorities. - Farmers' circumstances are consistent with the behaviour change principles underpinning the selected mix of activities. - Standardised quality assurance procedures and oversight will avoid mistakes and ensure alignment with DPI policies in regard to publications, external communication etc. - Success is measurable using indicators of behaviour change specific to the chosen mix of activities - Service design can be improved by monitoring farmer participation and opinions on activities - Intelligence for service evaluation and improvement can be gathered and used to generate recommendations

<ul style="list-style-type: none"> - Evaluation and performance measures - Legislative responsibilities - Administrative procedures 	
<p>3. <u>Delivery Choices</u>: Who performs the behaviour change activities?</p>	<ul style="list-style-type: none"> - Avoid competing with effective private service providers - Staff require specialised competencies to implement activities and manage networks - Staff require specialised skills to implement and manage contracts - Building capacity in private service providers will ultimately generate changes in behaviour of farmers - Formalised partnerships for service provision with community and private service providers based on formalised criteria and market research - Activities redesigned to accord with partner preferences and competencies - Where not delivered by FSV, contract terms and monitoring of private service providers will provide control in regard to: <ul style="list-style-type: none"> • alignment of delivery with DPI policies and standards • content, quality and timing of service delivery • gathering of intelligence for evaluation, improvement and implementation of subsequent recommendations • branding and attribution of intellectual property
<ul style="list-style-type: none"> - List of behaviour change activities - Service brands - Staff with competencies in the design and implementation of mix of activities - Criteria for selecting between public and private delivery - Criteria for selecting private service provider - Plans for joint delivery with partners - List of partner preferences and competencies - Contract design and management processes and policies - Staff with relevant contract management competencies - Dissemination networks - Capacity development activities for private service providers - Administrative and reporting procedures 	
<p>Service Architecture</p>	<p>Architectural Principles</p>
<p>Provision of a mix of activities to change the behaviour of farmers delivered by a mix public, commercial and community providers</p>	<ul style="list-style-type: none"> - Ensure achievement of public benefit by using both public and private service providers to implement a mix of activities - The scope of investment and design decisions will be limited to circumstances that are consistent with the treatment of farmers' rights as embodied in the selected mix of activities

- The scope of investment and design decisions will be limited to circumstances that satisfy the behaviour change principles underpinning the selected mix of activities
- Maximise efficiency and effectiveness of DPI services by making investment, design and delivery choices to achieve greatest benefit
- Community priorities drive adoption and use of agricultural technologies and farm products to achieve public benefit and therefore investment, design and delivery choices
- The choice of public or private service delivery will depend on cost and control in regard to:
 - investment, design and delivery
 - availability of staff in FSV and partners with requisite competencies to priority activities for FSV
 - implementation of processes to support FSV accountability for expenditure
- FSV investment in competencies of FSV staff and partners builds capability in sector as a whole

BSTF as a type of innovation

As noted above, in Table 3 we have highlighted in **red** the component principles and architectural principles in the generic service that are modified or superseded by the introduction of the new service model. In Table 4 we have highlighted in **green** the components, component principles and architectural principles that are introduced under the new service model.

Inspection of both tables reveals that the introduction of the new service model means many of the component principles in the three domains of investment choice, design choice and delivery choice are heavily modified or superseded. Further, the architecture and architectural principles underpinning the way in which these three domains link together to create the service are heavily modified.

This leads to the conclusion that the introduction of the new service model under BSTF represents a **radical innovation** in the way FSV in particular and DPI as a whole delivers services.

By definition the implementation of a radical innovation is extremely disruptive. Implementation requires the development of new competencies, processes and policies. It also usually entails changes in organisational structures and, in some instances, a change in organisational culture. Hence, the implementation of BSTF will be time consuming, demanding of resources, and will require careful planning to support the transition to a new way of operating.

In the next section we consider potential organisational implications of the new service model in more detail. We also provide examples of these implications drawn from our readings and discussions with FSV managers and staff.

The organisational implications of BSTF

Organisational competencies

Competencies are the skills, abilities and knowledge of an organisation (Gatignon et al. 2002; Smith 2000; Tushman & Anderson 1986). They are rooted in an organisation's experiences and are unique to it (Gatignon et al. 2002).

A radical innovation involves the introduction of a dramatically different way of operating in the sense that many existing competencies will not be compatible with the innovation. Therefore, successful implementation of the innovation requires the acquisition of a range of new competencies. These may be acquired through internal sources (capacity building, staff transfers) or external sources (recruitment, consultants). Often in the case of a radical innovation external sources are relied upon to bridge the substantial competency gaps that a radical innovation creates.

The new service model introduces the need to develop competencies in areas such as:

- Market research;
- processes and skills for choosing and delivering a range of behaviour change activities;
- selection and management of private service providers; contract design and management; and
- building capacity in commercial and community service providers (see Table 5).

The FSV managers we interviewed indicated that, naturally, few FSV staff would have competencies in many of these areas.

For instance, in regard to competencies in market research, the managers we interviewed indicated that the role of some FSV staff did include understanding farmer attitudes and behaviour using informal methods based on their personal networks, industry contacts and intuition. However, those with this role were not skilled in, or even aware of, more formal methods of gathering market research such as market segmentation. Consequently, few staff would have the capacity to apply these methods and know how to use the results effectively to inform investment, design and delivery choices in their programs.

The need to develop competencies in regard to delivery choices and contracting was also highlighted in the interviews. Staff would need to develop the capability to understand the criteria for choosing when to seek delivery with a commercial or community partner (see Keeble and Kaine 2009). They would also need to develop the capability to evaluate prospective partners using those criteria. Once a partner was selected, FSV staff needed skills in managing the relationship including skills in relation to designing and monitoring contracts.

Further, under the new service model FSV managers are encouraged to “grow the overall capability and sustainability of providers to the sectors” (DPI 2008b). This includes personal development programs aimed at increasing the technical competence of private service providers (DPI 2008b). This is a new role for FSV and reflects a shift in the focus of its behaviour change activities away from farmers to commercial and community service providers. This new role requires FSV staff to develop new competencies in regard to designing and implementing activities to build the capacity of commercial and community service providers. For example, FSV staff will require competencies to deliver ‘training the trainer’ activities and design information packages suitable for distribution to commercial providers. This is a different set

of competencies to those required for designing and delivering activities such as field days and group extension with farmers.

Concerns were raised about the limited range of competencies in some specialised service areas both internally and among commercial and community service providers generally. It was felt that in some technical areas there was simply a lack of skilled staff across the board. This was seen as a potentially important obstacle to the wholesaling of activities and the development of industry capacity.

In the interviews managers also raised concerns about the mobility of staff. They questioned the transferability of competencies and hence the ability, as well as willingness, of staff to move into different roles. Further, they believed there was a risk with the new service model of losing areas of competence within DPI which, though not required in the short term, may be needed in the future.

Our predictions in regard to organisational competencies were consistent with the views of FSV managers. The predictions suggest that FSV, and hence DPI, face a significant challenge in acquiring the extensive range of new competencies needed to implement BSTF.

Organisational processes and policies

A radical innovation also involves the introduction of a dramatically different way of operating in the sense that many existing organisational processes and policies will not be compatible with the innovation. Therefore, successful implementation of the innovation requires the development of a range of new processes and policies and their integration with those processes and policies that are unchanged.

Consequently, the introduction of the new service model introduces the need to develop new processes and policies in a number of areas (see Table 5). These include:

- Gathering and use of market research;
- choosing behaviour change activities;
- selecting and managing private service providers;
- designing and managing contracts; and
- building capacity in commercial and community service providers.

The FSV managers we interviewed were aware that the implementation of a new service model would require the development of a range of new processes and policies. This is supported by the extensive number of processes and policies proposed in DPI (2009a) to support implementation of BSTF.

FSV managers and staff were aware that a variety of new processes and policies were likely to be needed to ensure FSV retained control over performance in regard to the content, quality and timing of delivery of services by private service providers. FSV managers and staff already recognised that many existing processes and policies would require modification in regard to wholesaling such as:

- Intellectual property
- Branding of FSV activities
- Marketing and communication
- Authorisation and quality assurance processes

FSV managers and staff were concerned that existing processes and policies in these areas were not necessarily compatible with the new service model and that these incompatibilities would delay implementation of the new service model.

FSV managers and staff also highlighted the need for processes and policies to assist them to efficiently transfer the delivery of behaviour change activities from FSV to commercial and community service providers.

Our predictions in regard to the range of changes to organisational processes and policies likely to be introduced under BSTF were consistent with the proposals contained in DPI (2009a) and the views of the FSV managers and staff we interviewed. The predictions suggest that FSV, and hence DPI, face a considerable task in developing new processes and policies to implement BSTF.

Organisational structure

The implementation of a radical innovation may also involve the introduction of a dramatically different way of operating in the sense that existing organisational structures may not be compatible with the innovation. Therefore, successful implementation of the innovation may require the development of new organisational structures, the modification of existing structures, and the integration of both with those structures that are unchanged.

Consequently, the new service model introduces the need to review and possibly revise organisational structures in FSV and DPI. This is foreshadowed in DPI (2009a) which proposes the creation of a Wholesaling Co-ordination and Service Development Unit and a Community Group Support Unit.

The FSV managers and staff we interviewed were of the view that some change in organisational structure would be required as, on the basis of their experience, they were concerned that some current structures would be incompatible with the new service model.

For instance, the new service model would require the exchange of information between those responsible for intellectual property management, contract management, marketing and communications, and human resource management. Further, it would require this exchange to become routine. Whether this could be

best achieved through the development of appropriate processes and policies, or would require some organisational restructuring, was unclear.

FSV managers and staff highlighted the need for a detailed understanding of the context of a program – in terms of the nature of behaviour change required and the kind of activities that would create the behaviour change – in order to make sensible decisions about whether an activity was best delivered by FSV or a private service provider. This suggests that a balance must be sought between creating new organisational structures to implement BSTF and building new competences and developing new processes and policies to implement BSTF.

The need to balance centralisation of wholesaling through restructuring and through standardising of processes and policies was reinforced by managers with experience in working with other organisations to deliver FSV activities. They had found that behaviour change activities that had previously been delivered by FSV required considerable modification before they were suitable for delivery by the partner. Activities had to be redesigned to accommodate the preferences of partners for different styles of delivery and associated differences in the competencies of their staff.

These experiences reinforce the importance of having a comprehensive understanding of the context of a program – the nature of behaviour change required and the kind of activities that would create the behaviour change – and familiarity with the strategy and styles of commercial and community service providers, in order to make sensible decisions about whether an activity was best delivered by FSV in partnership with another service provider, and if so, which providers should FSV work with.

Our predictions in regard to the potential need for new organisational structures were consistent with the proposals contained in DPI (2009a) and the views of the FSV managers and staff we interviewed. The predictions suggest that FSV,

and DPI face a difficult task in choosing appropriate organisational structures to implement BSTF.

Organisational culture

A radical innovation may also introduce a dramatically different way of operating in the sense that the existing organisational culture may not be entirely compatible with the innovation. Therefore, successful implementation of the innovation may require changes to organisational culture.

Changing an organisation's culture is, typically, a long term process and can be extremely challenging for staff resulting in tension and conflict. Cunningham & Kempling (2009, 331) highlight that whereas 'changes which are aligned with the organizational culture may be embraced with enthusiasm and implemented quickly...changes that threaten the underlying culture are extremely difficult to implement'.

For example, the introduction of the new service model indicates a shift in focus for at least some staff away from interacting directly with farmers to interacting with commercial and community service providers who, in turn, interact with farmers. Those who were attracted to FSV because their role involved direct contact with the farming community may find this change in focus too challenging to accept.

This possibility was highlighted by managers who were aware that staff did not want to become 'contract managers'. Some staff believed that they would find it hard to feel that they had made a difference because it would be so difficult to observe the impact of their efforts on the behaviour of farmers.

Another example of cultural change raised by staff related to the new principles for working with community and commercial organisations to deliver services

(delivery choices). To date, engagement with these organisations was seen as inherently valuable, even where this engagement was not expected to directly influence the delivery of services to farmers by FSV. BSTF introduces into this arena the explicit 'commercial' assessment of community and commercial organisations as agents to deliver services to farmers. Concerns were raised that such commercial considerations were not necessarily compatible with a culture of collaborative engagement.

There are similar challenges for the culture of FSV, and DPI more broadly, in regard to the use of formal techniques in market research to guide decision about which farmer behaviours will be the focus for change (investment choices), and what activities will be used to obtain that change (design choices). For instance, some staff have specialised in promoting voluntary changes in farmer behaviour. These staff may be embedded in a culture that values working with farmers to affect changes that will benefit farmers themselves as well as the broader community. Staff embedded in such a culture would be particularly challenged by a requirement to engage in activities that enforce compulsory changes in farmer behaviour. BSTF raises the possibility that staff may be confronted with precisely this kind of challenge because of the shift in service design principles from specialisation in a primary behaviour change activity to use of a mix of behaviour change activities.

Relatedly, the use of formal techniques in market research to guide decisions about which farmer behaviours will be the focus for change introduces new criteria into the identification of policy outcomes and objectives. For example, criteria concerning the scope and rate of change that can be expected in producers' behaviour. The introduction of such pragmatic criteria into decision-making around policy outcomes and program investments could seriously challenge staff embedded in a behaviour change culture that views community participation and engagement as intrinsically worthwhile. Such criteria will also challenge staff embedded in a research culture that views innovation as intrinsically meritorious.

Given the classification of the BSTF as a radical innovation we predict it's implementation has the potential to create challenges for the organisational culture of FSV. This prediction suggests that FSV and DPI will face a major challenge in positioning staff to implement the new service model.

In this section we have highlighted potential changes in the competencies, processes and policies, structure, and culture of FSV that may be required to effectively implement BSTF. Such changes are likely to be required of other divisions in DPI as they implement BSTF.

Table 5: Organisational implications of BSTF as a radical innovation

Organisational competencies	Organisational processes and policies	Organisational structure	Organisational culture
<p>Need to develop new competencies such as:</p> <ul style="list-style-type: none"> • Market research • Choosing and delivering a range of behaviour change activities • Selection and management of private service providers • Contract design and management • Building capacity in commercial and community service providers 	<p>Need to develop new processes & policies to:</p> <ul style="list-style-type: none"> • Control service delivery through processes related to: <ul style="list-style-type: none"> ○ Intellectual Property ○ Branding of FSV activities ○ Marketing and communication ○ Authorisation and quality assurance • Gather and use of market research • Choose behaviour change activities • Select and manage private service providers • Design and manage contracts • Build capacity in commercial and community service providers 	<ul style="list-style-type: none"> • Creation of Wholesaling Co-ordination and Service Development Unit • Creation of Community Group Support Unit • Requirement for exchange of information between: <ul style="list-style-type: none"> ○ Intellectual property management ○ Contract management ○ Marketing and communication ○ Human resource management 	<ul style="list-style-type: none"> • Change in staff interactions from direct contact with farmers → contact with commercial and community service providers to influence farmers • Use of formal market research techniques to guide investment & design choices

Conclusion

In April 2008 the Victorian Government launched the Future Farming Strategy (DPI 2008a). This Strategy was the catalyst for a review of the way the Department of Primary Industries (DPI) delivered services to farmers. As a result, in April 2009 DPI publicly launched the 'Better Services to Farmers (BSTF)' strategy. The BSTF entailed the development of a new model for providing services to farm businesses (DPI 2008b).

The aim in this paper was to describe an approach to classifying innovations to a service that could assist managers in DPI to anticipate the organisational implications of BSTF for their program. The approach was an adaptation of Henderson & Clark's (1990) framework for classifying product innovations. The approach involves treating a service as consisting of a system of inter-related components based on a set of component and architectural principles. Changes to a service are classified into four types of innovations based on the extent to which the change alters these component and architectural principles. Each type of innovation has different consequences in terms of its affect on organisational competencies, processes, policies, structures and culture.

Given FSV's leadership in implementing BSTF we have used FSV services as our example in this paper. However, the concepts applied here are equally applicable to other DPI services.

Our analysis revealed that the introduction of the new service model embodied in the BSTF is a **radical service innovation** for FSV in particular and DPI as a whole. The implementation of a radical innovation can provoke severe disruption in an organisation by rendering existing competencies, processes, policies, structure and culture obsolete or irrelevant. Hence, the successful implementation of radical innovations requires an organisation to acquire new competencies, develop new

processes and policies, and review its structure and culture. A review of documents describing plans to implement the new service model under BSTF, and discussions with FSV managers and staff, indicated that this was indeed the case with regard to BSTF.

For instance, currently many programs in FSV tend to specialise, or depend primarily, on one kind of behaviour change activity (extension, regulation, incentives) to influence the behaviour of farmers. Under BSTF this will change – new service design processes will require program managers to methodically select and implement a *mix* of different behaviour change activities. This change will create a need for a new set of competencies in regard to choosing and implementing activities for staff within a program. It will also involve the development of new processes and policies within FSV and, possibly, require some restructuring. Reconciling and integrating these new processes, policies and structures with existing processes, policies and structures will be a complex task. For some staff this change may also challenge social values that are embedded in the culture of a program. This will, inevitably, create tensions in the organisation.

The same may be said for the other key changes that the new service model holds for programs, such as the use of market research in the formulation of program priorities and the introduction of wholesaling as a preferred method of service delivery.

Further, the new requirement under BSTF for FSV to develop capability in the private service sector introduces a new role for the division. Carrying out this role will require FSV to acquire competencies in developing and delivering training material to commercial and community service providers. It will also require the development of supporting processes and policies and, maybe, some restructuring. This role will also disconnect some FSV staff from farmers. Such a disconnect may challenge social values that are embedded in the culture of a program.

In short, the new service model entailed in BSTF is a radical service innovation. **Hence, implementing BSTF will be time consuming, demanding of resources, and will require careful and sensitive planning to support the transition to a new way of operating.** This is not the kind of innovation that can be implemented quickly or cheaply; the risk of failure is high (Isern & Pung 2007).

BSTF is likely to take some years to implement within FSV programs and across DPI as a whole. It will require both senior management and program managers in DPI to be skilled in all aspects of organisational change, or at least have access to relevant specialist advice. Such skills would include:

- A thorough understanding of the role of executive and senior management in leading organisational change and the capacity to undertake that role (Isern & Pung 2007; Barsh et al. 2008; Aiken and Keller 2009)
- A comprehensive knowledge of the key ingredients for organisational transformation including the creation, management and role of change agent teams (Isern & Pung 2007; Arrate et al. 2007)
- A thorough understanding of the distinction between capacity building and change management (Isern & Pung 2007; Aiken and Keller 2009)
- An appreciation of the key factors influencing organisational structure, the limits to what restructuring can achieve, and how to restructure organisations effectively (Barsh et al. 2008)
- Knowledge of organisational culture, management actions for changing organisational culture, criteria for selecting actions and how to implement them (Aiken and Keller 2009; Leslie et al. 2006).

Such skills are not acquired merely from experience. Effective implementation of BSTF may require substantial investment in building the competencies of senior management and program managers in DPI.

Our findings are consistent with Howden's (2008) review of service approaches which found that privatising services to farmers led to widespread changes in organisational competencies, processes and structures. For instance, the review highlighted the need for processes to coordinate information transfer and processes and policies for monitoring and evaluation to ensure control over service quality (Howden 2008).

A number of risks associated with privatising a service were identified in the review in regard to (Howden 2008):

- Knowledge management;
- the protection of intellectual property rights;
- fragmentation of R, D & E; and
- the development of public good focused contracts for private and community sectors.

Organisational responses to these risks will entail acquiring new specialised competencies, new coordinating processes and structural change (DPI 2008b).

While the nature and extent of organisational changes entailed in BSTF are considerable, FSV does possess internal capabilities aligned with the new service model. For instance, some staff have experience in developing and delivering services with external partners. Their knowledge and experience could contribute to the development of criteria and processes to identify and manage service delivery by commercial and community service providers. Their knowledge and experience could also prove valuable in resolving inconsistencies between existing organisational processes, policies and structures and those required for the new service model. However, while these capabilities exist they may not be present on a scale sufficient to match the nature and extent of organisational changes entailed in BSTF.

In conclusion, in this paper we have described an approach to classifying innovations to services. The approach could be used to reveal how a service innovation may appear as a different type innovation to different

program managers depending on the circumstances and history of their program. Hence, this approach could be used by program managers to anticipate the nature and extent of change they may need to make to their programs in order to implement service innovations. This knowledge would assist managers to form realistic expectations as to how quickly change can be achieved, and how costly it will be.

To the degree that BSTF presents as a different type of innovation to different programs, senior management in FSV and DPI should take this into consideration when forming expectations about, and planning, the scope and rate of change in each program.

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