REFORMING THE ORGANISATION OF AGRICULTURAL EXTENSION IN GERMANY: LESSONS FOR OTHER COUNTRIES
Volker Hoffmann, John Lamers and Andrew D. Kidd

Abstract
What is distinctive about the reform of agricultural extension in Germany and what lessons emerge for other countries? This article describes the organisation and financing of agricultural extension in the sixteen German states from two perspectives: that of the provider and that of users. The main extension providers in Germany include government ministries, Chambers of Agriculture or private individuals and organisations. Among the users, two forms of group extension are becoming increasingly popular in Germany – one requires legal registration, the other does not. Various trends in how the organisation of extension is changing in Germany and lessons learnt from the reforms are described. The article shows that the quality of advisory services can be improved through greater participation of farmers in financing and controlling extension and that the state still has an important, though changing, role. Many of the principles emerging from the German case are applicable in transitional and less industrialised countries. However, appropriate strategies need to be locally defined.

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Volker Hoffmann is Professor at the Department of Agricultural Communication and Extension, Institute for Social Sciences of the Agricultural Sector, Hohenheim University (430A), 70593 Stuttgart, GERMANY. Tel: 49 (0)711 459 2646 Fax: 49 (0)711 459 2652. Email: i430a@Uni-Hohenheim.de

John Lamers is a member of the consultancy group PACTeam, Hauptstr. 15, 88379 Guggenhausen, GERMANY. Tel/Fax: 49 (0)711 586 5610. Email: PACTeam@T-Online.de

Andrew D. Kidd is a member of the consultancy group PACTeam and a UK-based Visiting Fellow at the Department of Agricultural Communication and Extension, Institute for Social Sciences of the Agricultural Sector, Hohenheim University. He can be contacted at 4 The Elms, Ellington, Morpeth NE61 5LH, UK. Tel/Fax: 44 (0)1670 861 859 Email: Kidd@Uni-Hohenheim.de
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**Acronyms**

EU  European Union  
SAO  State Agricultural Office
1 INTRODUCTION

Reform of public sector agricultural service provision is on the agenda in many countries in which government extension services are criticised for being inefficient and out of touch with the needs of their clients and wider society (Rivera and Gustafson, 1991; Rivera, 1996; Carney, 1998). The trend is to reduce the role of the state and to promote private enterprise. There are a number of useful principles that can aid the reform process, in particular notions of public–private good (Kidd et al., 1997; Beynon et al., 1998). However, empirical evidence on possibilities for reform remains limited. Many policy makers in transitional and less industrialised countries are keen to know of more concrete cases that enable them to obtain a vision of how the process of public sector reform can proceed.

To this end, the case of reform in agricultural extension in Germany is interesting, particularly for those governments who are also concurrently proceeding with a process of wider sectoral reform and decentralisation. Germany comprises sixteen states (Figure 1) and these, by federal law, are responsible for agricultural extension. Each state has its own agricultural policy which must operate within the framework provided by the federal government and European Union (EU) regulations. Agricultural extension has a different history and organisational set-up in each state, providing a wide range of experiences from which to learn (Avenriep, 1997; Grygo, 1996; Hausen, 1997; Hoffmann, 1995, 1996; Jochimsen, 1994; Steffens, 1998).

This paper explores the diversity inherent in the agricultural extension sector of Germany and describes the development of organisational reforms of extension in Germany. This is viewed from two key levels: extension providers, and clients of extension agencies. It draws lessons from the changes taking place and examines the ways in which these are applicable to reform processes in transitional and less industrialised countries.

2 DRIVING FORCES FOR CHANGE IN THE ORGANISATION OF EXTENSION

Germany has a long history of organisational differentiation in the development of agricultural extension systems. Before the unification of East and West Germany in 1990, there was a general consensus among stakeholders (consumers, farmers, industry, politicians) favouring the prevailing agricultural sector policies and strategies. Interests were rather congruent and related to the need for high production by farmers at low cost to the consumer. However, consumers and taxpayers, supported by a critical media, became increasingly doubtful about both the extension system and the performance of farmers. Official extension was seen as expensive and hierarchical, and no longer serving the interests of either farmers or wider society. Furthermore, there was growing public concern for environmental issues and greater interest in more sustainable production methods. More and more, extension services came to be seen as parasitic and endangering the environment. Private and public interests in agriculture no longer matched.

The official extension services came under further pressure when latent role conflicts began to surface. The extension agents not only had to provide information, education and advice but also to fulfil more and more public administration tasks. New government laws and particularly the high number of ever-changing regulations issued by the EU turned the extension agent rapidly into a middleman for subsidy acquisition – for example, with the help of the extension agent, German farmers in 1995 could request up to 16 different subsidies. These activities can fully occupy the working time of extension agents during some periods of the year. Due to the increasing number of regulations, there was also a tendency for extension agents to become law enforcers. In the face of this role conflict (adviser, middleman and law enforcer), many farmers did not feel well served. Furthermore, they desired organisational forms that allowed them a greater voice.


\[\text{Figure 1: The main extension providers in the states}\]

<table>
<thead>
<tr>
<th>State Code</th>
<th>Description</th>
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<tbody>
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<td>NW</td>
<td>Chambers of Agriculture</td>
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<tr>
<td>S</td>
<td>Ministries</td>
</tr>
<tr>
<td>NE</td>
<td>Private extension</td>
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</tbody>
</table>

1 In Rheinland-Pfalz there is also a Chamber offering extension services to viticulture.
3 MAIN ORGANISATIONAL FORMS OF EXTENSION PROVISION

A salient feature of the different organisational forms of extension provision in Germany is the level of complementarity between the wide range of suppliers, be they official, private or any form in between. This allows for a variety of possibilities for integrating the three sectors: (i) public; (ii) private (for-profit and not-for-profit); and (iii) farmers’ groups and associations. Pluralism in agricultural extension is a reality and the situation is becoming increasingly complex.

The extension programmes of the different suppliers interact in various ways, sometimes competing, operating in a coordinated manner, or cooperating in more formal partnerships. The diversity of actors and the moves to decentralisation are, at the political level, partly a reflection of the post-war situation in Germany and the political will to reduce the influence of the state. At the societal level, the set-up is partly a manifestation of the complementarities and synergies that can exist among different societal structures - federal and state institutions, the private sector and various associations, self-help groups and organisations.

The sixteen states can be broadly grouped into three main organisational forms of extension provision (Figure 1, Table 1). In the north and northwest of Germany, official extension is the responsibility of the Chambers of Agriculture. In the south, official extension is provided by the state ministry responsible for agriculture, often the State Agricultural Office. In the northeastern states, various types of privately organised extension delivery systems now exist. Each of the extension providers operating within these three main organisational forms is described below.

Chambers of Agriculture

Chambers of Agriculture are large regional organisations representing the interests of all farmers, governed by elected farmer representatives and run by professionals. There may be one or two Chambers of Agriculture, according to the size of the state (Table 1). The legal framework and the mandate of a chamber varies somewhat between states. They receive a fixed basic contribution from each member based on the economic potential of his or her farm enterprise. However, most of a chamber’s budget is provided by the state, legally based on a chamber’s law.

The state pays the chambers to carry out various functions. Applied research, training and education, and administration and control of the agricultural sector are, in most cases, completely financed by the state. However, the functioning of an extension department and its staff is only partly subsidised. For example, in the states of Nordrhein-Westfalen and Hamburg the subsidy level on extension is up to 50 per cent, whereas in Schleswig-Holstein it is up to 40 per cent. In the past, the chambers only offered their members basic services, demanding additional fees for special services such as soil sampling, soil analysis and assistance in farm planning.

Most chambers are organised according to subject matter, for example, plant production, livestock husbandry, farm economics or nutrition. The chamber of Westfalen-Lippe, however, offers an interesting exception – it covers about half of the state of Nordrhein-Westfalen and is organised according to functions such as administration, agricultural extension and education (Avenriep, 1997). The farming system in this area has a long-standing tradition of only one male inheriting the family enterprise. Thus there has been little fragmentation of farms, unlike many other regions, and this has contributed to the maintenance of large farms of sound economic potential. For many years the Westfalen-Lippe farmers have been well educated; they have clear ideas of what they need and are politically astute. Thus they were able to successfully force change in the chamber, towards an organisation based clearly on functions. Despite its advantages in overcoming role conflicts, no other chamber has adopted this organisational structure so far.

The State Agricultural Office

In states where the government has been the main extension provider this is often done through a Ministry of Agriculture. However, this is not always the case - there is an emerging tendency for agriculture not to have a distinct ministry. The State Agricultural Office (SAO) may be within a ministry responsible for other sectors such as environment or land development, or it may fall under a broad-based Ministry of Economy or Internal Affairs.

The organisation of the SAO usually follows a structure organised according to technical subjects (Hoffmann, 1996), in which the functions of administration, control, education and advisory work are each subsumed within technical units such as agricultural legislation and farm economics, plant production and marketing, livestock production or household economics and nutrition. In the early 1990s, the states of Bayern and Hessen changed to a function-based organisation (as in the case of the chamber of Westfalen-Lippe above). This set-up was also adopted in Sachsen and Thüringen when new SAOs were established following unification of East and West Germany. The idea behind this change was to separate regulatory and advisory functions and avoid conflicts over roles.

Private extension advisers

One of the strongest impulses for organisational change came after the unification of East and West Germany in 1991. The five new states (of former...
Reforming the organisation of agricultural extension in Germany

Northwest (NW): Chamber of Agriculture

- Schleswig-Holstein (1)*
- Niedersachsen (2)
- Nordrhein-Westfalen (2)
- Hamburg (1)
- Bremen (1)
- Saarland (1)

- State superiors at the chambers.
- Only indirectly to clients.
- State, according to regulations issued by Federal Government and EU.

Issues:
- Lack of capacity (large number of tasks in administration, education and extension)
- Role conflict (controller, adviser)
- Management & motivation
- Selection of priorities
- Methods
- Staff qualification

South (S): government ministry, e.g. State Agricultural Office (SAO)

- Rheinland-Pfalz, Hessen, Sachsen, Bayern, Baden-Württemberg

- State superiors.
- Only indirectly to clients.
- State, according to regulations issued by Federal Government and EU.

Issues:
- Lack of capacity (large number of tasks in administration, education and extension)
- Role conflict (controller, adviser)
- Management & motivation
- Selection of priorities
- Methods
- Staff qualification

Northeast (NE): Private advisers

- Mecklenburg-Vorpommern, Brandenburg, Thüringen, Sachsen-Anhalt

- Fees and State subsidies.
- Directly to clients and contracting structures.
- Clients and state regulatory bodies.

Issues:
- Income is variable and advisers are often eager to find permanent employment.
- Contracts depend on the situation.
- Favours farmers of ‘richer’ circles or large holdings.

Table 1. Main agricultural extension providing structures in Germany and associated issues

<table>
<thead>
<tr>
<th>Main provider</th>
<th>States</th>
<th>Main funding</th>
<th>Accountability of advisers</th>
<th>Quality control</th>
<th>Issues</th>
</tr>
</thead>
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<tr>
<td>Northwest (NW): Chamber of Agriculture</td>
<td>Schleswig-Holstein (1)*, Niedersachsen (2), Nordrhein-Westfalen (2), Hamburg (1), Bremen (1), Saarland (1)</td>
<td>State</td>
<td>Superiors at the chambers. Only indirectly to clients</td>
<td>State, according to regulations issued by Federal Government and EU</td>
<td>Lack of capacity (large number of tasks in administration, education and extension) * Role conflict (controller, adviser) * Management &amp; motivation * Selection of priorities * Methods * Staff qualification</td>
</tr>
<tr>
<td>South (S): government ministry, e.g. State Agricultural Office (SAO)</td>
<td>Rheinland-Pfalz, Hessen, Sachsen, Bayern, Baden-Württemberg</td>
<td>State</td>
<td>Ministry superiors. Only indirectly to clients</td>
<td>State, according to regulations issued by Federal Government and EU</td>
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<td>Mecklenburg-Vorpommern, Brandenburg, Thüringen, Sachsen-Anhalt</td>
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<td>Income is variable and advisers are often eager to find permanent employment * Contracts depend on the situation * Favours farmers of ‘richer’ circles or large holdings</td>
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Adapted from Lanz (1993).

* Indicates number of Chambers of Agriculture in a state.
East Germany) had to cope with the re-privatisation of their large agricultural holdings. The legal, fiscal and policy framework disfavoured continuation of the former farming structures and created a sudden high demand for advisory services. Since it was unclear as to the type of farms and farmers that would remain viable within the new farming environment, forms of extension organisation requiring a stable membership base were not practical in the short-term. Hence, the preconditions were inappropriate to install Chambers of Agriculture. Furthermore, farmers lacked experience and confidence in this type of cooperation and the state feared investing too much in an uncertain environment. Indeed, after nine years the situation is still not stable and farms are rather heterogeneous.

Three of the five new federal states, therefore, opted from the outset to use private commercial enterprises rather than state services for the provision of extension to farmers. In 1998, Thüringen decided to follow its neighbours in the north and privatised extension provision. Whilst private agricultural extension experts can offer their services either as individuals, in partnership with other advisers or as a company (Steffens, 1998), each extension agent and firm must register officially with the state. In this way, a regulated market of extension provision has been created in each state.

Though extension provision is through the private sector, in each case the state maintains a role in subsidising the cost. For example, in 1994 Sachsen-Anhalt began to openly promote purely commercial extension, but the state would still repay up to 80 per cent of the costs incurred by farmers. At the time the annual ceiling for family farms was the equivalent of about US$1,250, and US$3,125 for company farms. About 50 per cent of all farms took advantage of these subsidies. Such a system requires that farmers are proactive in seeking out advice, after which part of the cost is covered by the government. In this way, an element of client-driven demand is incorporated into extension provision.

A publicly-limited company, in which the state, farmers unions and individual farmers are all members and shareholders, was created in Mecklenburg-Vorpommern to offer advisory services to farmers. The company is part government-owned and part privately-owned. The services offered by the company must be paid for by farmers and are subsidised by the state. Farmers pay fees for advice, the cost of which varied in 1996 from the equivalent of US$310 to US$625 per service, depending on the duration of the consultancy. In states such as Brandenburg and Sachsen-Anhalt, the government refunds advisory fees (completely or in part) when advice concerns the restructuring of a farm enterprise, as each state has an interest in the establishment of new farms. Additional subsidies are associated with extension provided to groups.

There is a tendency for states to reduce the level of subsidies over time and the situation has not yet stabilised. Indeed, the conditions associated with several programmes have tended to appear rather unpredictable to both farmers and private extensionists, in some cases leading to rather embarrassing situations between client and adviser.

While there are certain transaction costs associated with refunding schemes, these tend to be less than many other subsidy programmes. Furthermore, extension advisers and firms are more accountable to their clients who can now exercise greater quality control. There is some evidence to suggest that client satisfaction is mainly dependent on the quality of the advice given and the attitude of the adviser to the client. This lends support to the client-centred theoretical underpinnings of much of German extension (e.g. Albrecht et al., 1989). If the adviser does not meet the expectations of the farmer then there will be little client loyalty. Since a farmer is free to obtain advice from any registered adviser, the competition that exists among advisers enhances the quality of service provision and heightens the level of accountability of the adviser to the client.

**Other extension providers**

While extension provision can be characterised largely according to the three categories shown in Figure 1, a number of other extension providers also exist in Germany. Indeed, the ways in which farmers obtain advice is becoming more and more complex in many states, as is the nature of the advice in the face of growing agricultural sector...
forms focusing on group extension are advice circles (Lanz, 1993). Prominent organisational approaches increased three-fold between 1991 and 1992 alone (Lanz, 1993). Group extension is becoming more popular – the organisation exist alongside extension provided by individual extension. These forms of client extension models to replace or complement increase efficiency have given further impetus for Moves to reform the official extension structures and diversification. The emergence of a number of other extension providers further demonstrates the trend towards greater pluralism in agricultural extension in Germany.

German farmers can also benefit from advisory services provided by self-help producer organisations. Specific information and advice for farmers is provided by farmers’ unions, marketing cooperatives (often on commodity quality and financial issues) and farmer associations (e.g. through advisory and controlling activities). The funding structure of these extension services is quite variable, but is generally based on a combination of membership fees and state subsidy (Hoffmann, 1996).

Furthermore, information and advice on specific topics is offered by producers of farm inputs (chemicals, seed, machinery and so on), processing and marketing organisations, credit institutions and banks, insurance companies, energy providing enterprises, agricultural research institutes, regional development departments, labour offices and church agencies. There are also a growing number of regional and rural support initiatives that offer a variety of advisory services to farmers. The funding of these structures differs: in some cases cost is factored into the product price, while in others advice from organisations with social aims is given free of charge. The organisation of these extension providers varies greatly and they can be subject to various forms of legal registration as charitable organisations, clubs, cooperatives or companies.

4 EXTENSION CLIENTS: THE ORGANISATION OF FARMER GROUPS

Moves to reform the official extension structures and increase efficiency have given further impetus for group extension models to replace or complement individual extension. These forms of client organisation exist alongside extension provided by the state, Chambers of Agriculture or private firms. Group extension is becoming more popular – the amount of advice based on group extension approaches increased three-fold between 1991 and 1992 alone (Lanz, 1993). Prominent organisational forms focusing on group extension are advice circles (Ringberatung) and farm enterprise working groups (Betriebsleiterarbeitskreise). Each state or chamber has tended to promote one of these two forms (Figure 2). Each form has similar objectives and a number of sub-types, as described below. It has been shown that the variation in form is mainly dependent on the specialisation, content and intensity of advice (Lanz, 1993). General advisory services for the whole farm enterprise are less common within group extension.

Advice circles

In advice circles, members with similar farming enterprises or similar problems group together in an association to employ one or several extension agents. Circle members must pay a fee and make their farm data available to the extension agent for statistical and monitoring purposes. In exchange, farmers receive an analysis of their farm and advice on production and marketing, or information about new production techniques (Lanz, 1993). An advice circle must be legally registered and is required by government to have a board, elected by the members, with clear statutes and so on. The board contracts the extension agent, negotiates on salary and resources and supervises the duties of the adviser.

In the states of Niedersachsen and Schleswig-Holstein, the advice circles are complementary to the publicly-supported extension service, and the state government may finance the costs involved to a maximum of 50 per cent of staff and resource costs. Over the years the level of subsidy has tended to decline. In other states, such as Baden-Württemberg and Rheinland-Pfalz, advice circles have only recently been promoted and legally recognised as an organisational form.

There is wide variation in the organisation of advice circles. Membership is usually between 20 and 40 farms, but can be as high as 700. There is usually one adviser for between 15 and 40 farms. The number of advice circles in a state varies greatly and is partly determined by the length of time that advice circles have been promoted and the diversity of the farming systems. The financial contribution of a member can be determined according to the size of the land holding or the number of animals, or they may pay a fixed membership fee regardless of the size of the enterprise. Finances are supplemented by fees for services above a basic provision.

The state of Hessen offers a minimum amount of extension free of charge to farmers, parallel to the advice circles it subsidises. Intensive and specialised individual extension services have to be at least partly paid for. This semi-commercialised extension system considers two types of farmer groups, classified into either Type A (extension focuses on parts of the production system) or Type B (advice on the whole farm enterprise). Type A farmers pay an annual lump sum of the equivalent of about US$200 plus tax and Type B farmers pay US$400 plus tax.

One of the key advantages of advice circles compared to official extension services is the absence of role conflicts that can handicap government services. The extension agent is not a representative of the government, but is employed by the circle. In addition, all circle members pay for the advice they need. Thus an adviser is highly accountable to the farmers, who are able to have a significant degree of control over the quality of the service. On the other
A role for the collective action sector

Farmers are increasingly gaining responsibility for organising, financing and controlling extension in Germany. The growth of farmer-controlled group extension is an example of this trend. This has led to increased efficiency, quality and client orientation, and has resulted in greater value-for-money for all stakeholders such as farmers, government, trade and industry. Development of this sector has required some investment by the state.

Carney (1996) also notes that supporting the development of farmer-controlled organisations is a worthy form of investment in transitional and less industrialised countries. In many countries this may not be easy and will require the political will to invest in this long-term process. Special attention must be given to make sure that poorer farmers are not further alienated in the process, as can be seen in some cases in Germany.

Job satisfaction or insecurity?

Many extension agents have found that the greater flexibility in their working conditions that comes with greater privatisation provides useful incentives and job satisfaction, leading to a low staff turnover. There are reasons to perform well in the private sector that did not exist in the public sector. The same has been found to be the case in The Netherlands (Tacken, 1997). However, there are also a number of advisers who have equated flexibility with insecurity and seek ways of finding longer-term job security that is less dependent on their own performance. Both of these cases can be addressed through various mechanisms (within both the public and private sectors) to reduce the tension between performance and job security.

More competition, less openness

When advice and information exchange becomes commoditised under the privatisation of agricultural extension, the competitive environment can mean greater information control and less openness. Thus remuneration for an extension agent becomes more closely tied to good advice and effective information exchange: if you don’t pay, you don’t get. This can be used by the public sector as an argument against privatisation as it is seen as a hindrance to development of the agricultural knowledge system.

The counterargument is that there is little incentive to provide a good service if performance is not closely tied to remuneration. Experiences in Germany suggest that privatisation has tended to improve the quality of service to many farmers and that there is now more dynamism in the advisory services. However, it is also recognised that poorer farmers may often require more open access to some services that would otherwise not reach them.

There are many more poorer farmers in transitional and less industrialised countries and this concern will need to be higher on the agenda than in Germany.
While more competition may result in a tendency to less openness, the state can engineer access for disadvantaged groups through various mechanisms such as voucher schemes or targeted contract arrangements (e.g. Scheuermeier et al., 1998; Kidd et al., forthcoming).

A role for the state
Evidence suggests that both economic and social reasons justify some public financing (though not necessarily provision) of extension (Cary, 1993). Furthermore, various functions are not readily absorbed by the private sector. These include education and training for basic qualifications, strategic experiments and pilot programmes, assignments in remote areas, unattractive subjects, issues concerning integrated rural development, the conservation and stabilisation of the natural resources, and other aspects of public concern.

In addition, governments need to develop strategies for the evolution of extension systems based on subsidiarity and synergy among sectors, and concentrate more on policy formulation and analysis, quality control and regulatory functions. Experience in Germany shows that the most disadvantaged groups in a society can become alienated when free market principles operate or when more responsibility for organising and financing extension is transferred to the user. This will be an important issue for the state in managing the potentially negative effects of the market and may require state-supported social safety nets in the advisory system.

The same principles apply in transitional and less industrialised countries. However, the state may need to take on a greater role in providing some basic services in those countries or regions where poverty among farmers is greater, where farmers are poorly organised and where the private sector is particularly weak.

Public sector inertia
Public concern and budgetary constraints meant that change was inevitable in the organisation of agricultural extension in Germany. This is also the case in many other countries. However, public sector reform can mean loss of state authority and control, and a reduction in the workforce. Experience in Germany suggests that public sector organisations (and Chambers of Agriculture that follow public sector norms) exhibit significant inertia in the reform process. Strong farmers can exert sufficient pressure for change, as in the case of the organisation of the chamber in Westfalen-Lippe. In other states, however, farmers were not able to bring about change until they formed a strategic alliance with politicians, as in the case of the introduction of advice circles in Baden-Württemberg. Of course, unification of East and West Germany wiped the slate clean in the East and brought an opportunity to force rapid and sweeping reforms there.

Similarly, public sector agricultural extension organisations in many transitional and less industrialised countries resist change. Farmers are usually unable to exert significant pressure for change, which is more often forced by donors and lending institutions in the face of fiscal crises that make large organisations financially unsustainable – as was the case with the World Bank-supported Training and Visit systems.

Avoid role conflict
Avoiding the role conflict (adviser, controller, middleman) more often inherent in public sector organisations is being taken on board as an important issue in the organisation of extension in Germany. There are two mechanisms by which this has been achieved. Firstly, chambers and ministries can structure their divisions according to functions rather than technical subject matter. Secondly, users can be given more control over the way in which they obtain advisory services. This can be achieved by supporting the development of farmers’ organisations, enabling them to contract advisers directly and by privatising extension functions.

This issue is also recognised in many transitional and less industrialised countries and needs to be similarly addressed. However, many agricultural ministries remain structured according to technical subject matter, and entrenched interests make change contentious and difficult to broker. Shifting more responsibility to farmers for obtaining advisory services will be easier in those situations where farmers already have existing organisations or the potential for readily attaining a certain level of organisational competence. Unfortunately, this is not always the case.

Targeting finances for the public good
Experience in Germany suggests that all advisory services can be privatised to some extent. However, many services remain subsidised by the state. Efforts for privatisation or commercialisation need to take account of both the private and the public good. Subsidies should be targeted in the public interest (contingent, perhaps, on matching environmental or sustainability targets) and private interests paid for by the individual who benefits. The basic idea is that farmers should pay at least something and that this will vary according to whether a service is a public or private good. Fees need to take account of a farmer’s willingness (and ability) to pay and subsidy levels should be set accordingly. Similar principles can hold in poorer countries, but the level of subsidy and the targeting of public finances will vary according to the circumstances of both farmers and the national economy. Setting fees for agricultural extension must also take account of concurrent privatisation of other social services (health, education) that compete for a farmer’s financial resources, otherwise the high levels of social exclusion of many of the poorest farm families may be further aggravated.
The administration of subsidies targeted at individual farm enterprises is possible in Germany where farmers and their land holdings are formally and legally registered in various ways. The targeting of subsidies for the public good will need to use other, often less effective, mechanisms in countries where farmers presently suffer from lack of inclusion in forms of legal registration.

Greater flexibility in an evolving system
The uncertainty surrounding the future of the agricultural sector in former East Germany made more inflexible forms of organisation less attractive and allowed the establishment of wholly privatised extension provision. Agricultural extension is changing in Germany, but this change has been most difficult in those areas where the forms of organisation are bound by inflexible public sector regulations (including chambers). Having a legal framework that is private, even where the 'ownership' of an extension-providing organisation remains public (as in the case of Mecklenburg-Vorpommern) supports flexibility. This means rigid public service regulations concerning budgeting and personnel can be avoided.

The idea that flexibility in organisation is useful for the evolution of extension systems is also valid for transitional and less industrialised countries. Supporting pluralism in extension provision not only enables the development of complementarities and synergies with present systems but also can allow for systems to evolve in response to changing circumstances.

6 CONCLUDING REMARKS
Nowadays even more than ever, German agriculture needs high quality extension services, not only to assist farmers in handling the constant flow of new, complicated government and EU regulations but also to serve the increasingly specialised demands of clients.

The discussion on the privatisation of agricultural extension services should focus less on simply choosing between either private or public extension services. There are opportunities for integrating public and private sectors as well as farmer groups and associations (Kidd et al., forthcoming). There is no single solution for systems improvement: 'many roads lead to Rome'. The role of governments should be to promote pluralistic diversification and to set a level playing field that takes account of public concerns.

Care must be taken in generalising from any one example and particularly in transferring institutional arrangements from industrialised to transitional and less industrialised countries. Farrington (1994) has noted the 'ideal' ingredients for an agricultural technology information system from experiences in industrialised countries, and it is clear that these are far from being in place in transitional and less industrialised countries. Nevertheless, many of the principles that emerge from the German case are applicable in many other countries. Of course, these will need to be locally interpreted and strategies defined in a situation-specific manner.
REFERENCES
ENDNOTES
1 Mecklenburg-Vorpommern, Brandenburg, Sachsen-Anhalt, Sachsen and Thüringen.