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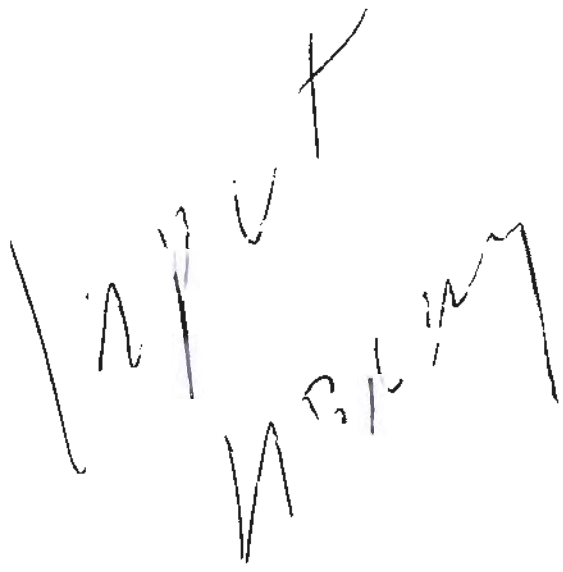
STRATEGIC MARKET PERSPECTIVE

Supporting Client/Server Systems—Europe, 1994

Customer Services Programme: Europe

DECEMBER 1994

Supporting Client/Server Systems–Europe 1994



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Abstract

Many of the changes taking place in the provision of IT product support and user services are being driven by the client/server phenomenon. As client/server computing grows in importance, service providers are having to reassess their service capabilities, reskill for new technologies and build new relationships with other IT vendors, as well as with their customers.

The strength of customer demand for client/server solutions is generating many potential business opportunities for service providers, yet the mystique surrounding client/server often obscures the true nature of those opportunities. This report endeavours to clarify the position regarding opportunities in client/server support by:

- Explaining how client/server technology is affecting the growth of customer services markets
- Assessing the ways in which user support needs change when organisations make the transition to client/server computing
- Analysing user attitudes and preferences, including user satisfaction with current services.

This report is based on European user research focused on organisations which have made the transition to client/server architecture in the last two years. The objective of the report is to provide guidance for service vendors wishing to take advantage of the significant service opportunities now emerging in the client/server arena.

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Supporting Client/Server Systems–Europe 1994

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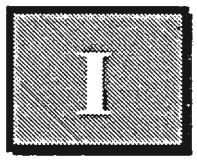

Introduction

This report was produced as part of INPUT's 1994 Customer Services Programme in Europe.

A
Objectives and Scope

The trend towards client/server computing is a key force for change in the customer services marketplace today. This report sets out to look specifically at the ways in which organisations' support needs change when they make the transition to client/server computing.

The purpose of this report is to provide European customer services vendors with an analysis of current conditions relating to the support of client/server systems. In particular, the objectives of the report are to:

- Explain how the client/server phenomenon is affecting some of the principal customer services markets
- Assess the ways in which user support needs change when organisations make the transition to client/server systems
- Analyse user attitudes and preferences in terms of their support and service needs in a client/server environment (including user satisfaction data).

B
The Customer Services Market in Context

INPUT's definition of the customer services market identifies six separate market sectors, as shown in Exhibit I-1. These are:

- Equipment Maintenance
- Environmental Services
- Systems Software Support

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- Education and training
- Professional services
- Business continuity services.

Each of these market sectors, with the exception of Environmental Services and Business Continuity Services, is discussed in this report.

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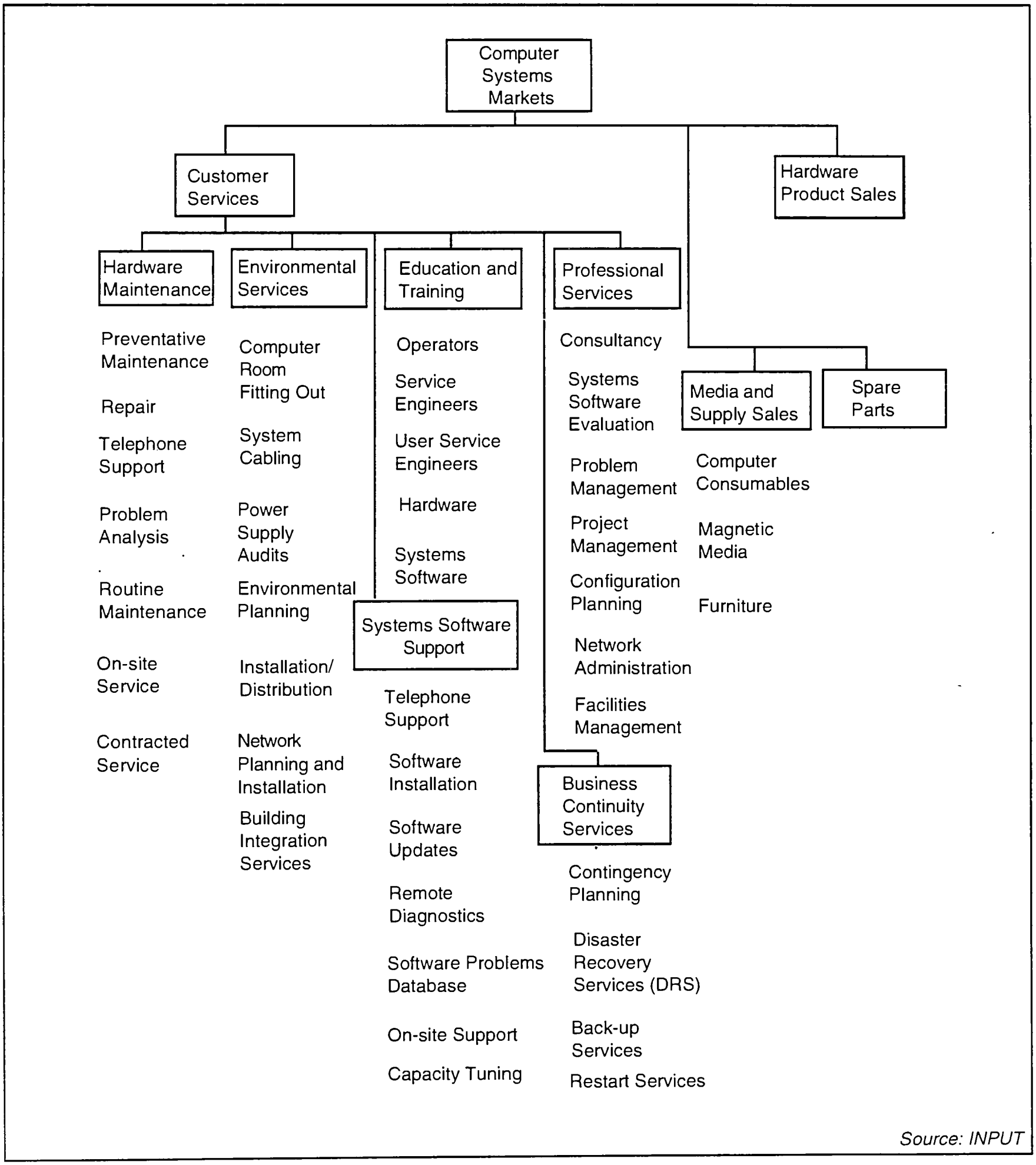
Exhibit I-1

Customer Services Market Structure



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C
Methodology

This study is based primarily on interviews conducted in the user community, and is supported by INPUT's continuous research of the European customer services markets.

The user research is based on interviews with 90 European organisations which have made the transition to client/server architecture in the last two years. Telephone interviews were conducted with organisations in France, Germany and the UK (30 in each country). Respondents were selected to be a random sample of managers with IT responsibility for client/server installations.

D
Report Structure

The remaining chapters of this report are organised as follows:

Chapter II is an executive overview that summarises the major findings and recommendations of the report

Chapter III contains an analysis of the impact of client/server architecture on customer services markets, and includes sizing and growth forecasts

Chapter IV draws conclusions from the user research in terms of how support needs change when organisations make the transition to client/server systems

Chapter V draws conclusions from the user research in terms of the current state of support for client/server systems, and specifically server equipment

Appendix A contains the questionnaire used for the user telephone survey.

E
Related INPUT Reports

Other INPUT reports which address topics related to the subjects discussed here include the following:

Customer Services Market Analysis and Forecast – Europe, 1994-1999 (December 1994)

Desktop Services Outsourcing – Europe, 1994 (June 1994)

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Equipment Service Contracts in an Open Environment – Europe, 1993 (April 1994)

Systems Software Support Contracts in an Open Environment – Europe, 1993 (June 1994)

User Issues and Trends in European Customer Services (February 1993)

Open Systems Services Challenges and Strategies – Europe (March 1993).

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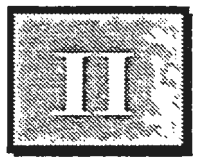

Executive Overview

A
Client/Server Drives Customer Service Opportunities

The trend towards client/server technology is one of the major forces for growth in the customer services marketplace today.

The transition from the datacentre to downsized, highly distributed computing environments has re-shaped the market for services and has caused service providers to reassess their own service capabilities.

Exhibit II-1 illustrates the degree to which client/server technology is influencing the delivery of customer services. It shows an analysis by computer platform of how customer services revenues are distributed in 1994 and forecasts the position in 1999.

The biggest growth area is in the open/UNIX server market, which will grow from just over 20% to 35% of the market by 1999. The open server and PC/workstation platforms combined (i.e., effectively the client/server market) will collectively represent 65% of the customer services market by 1999.

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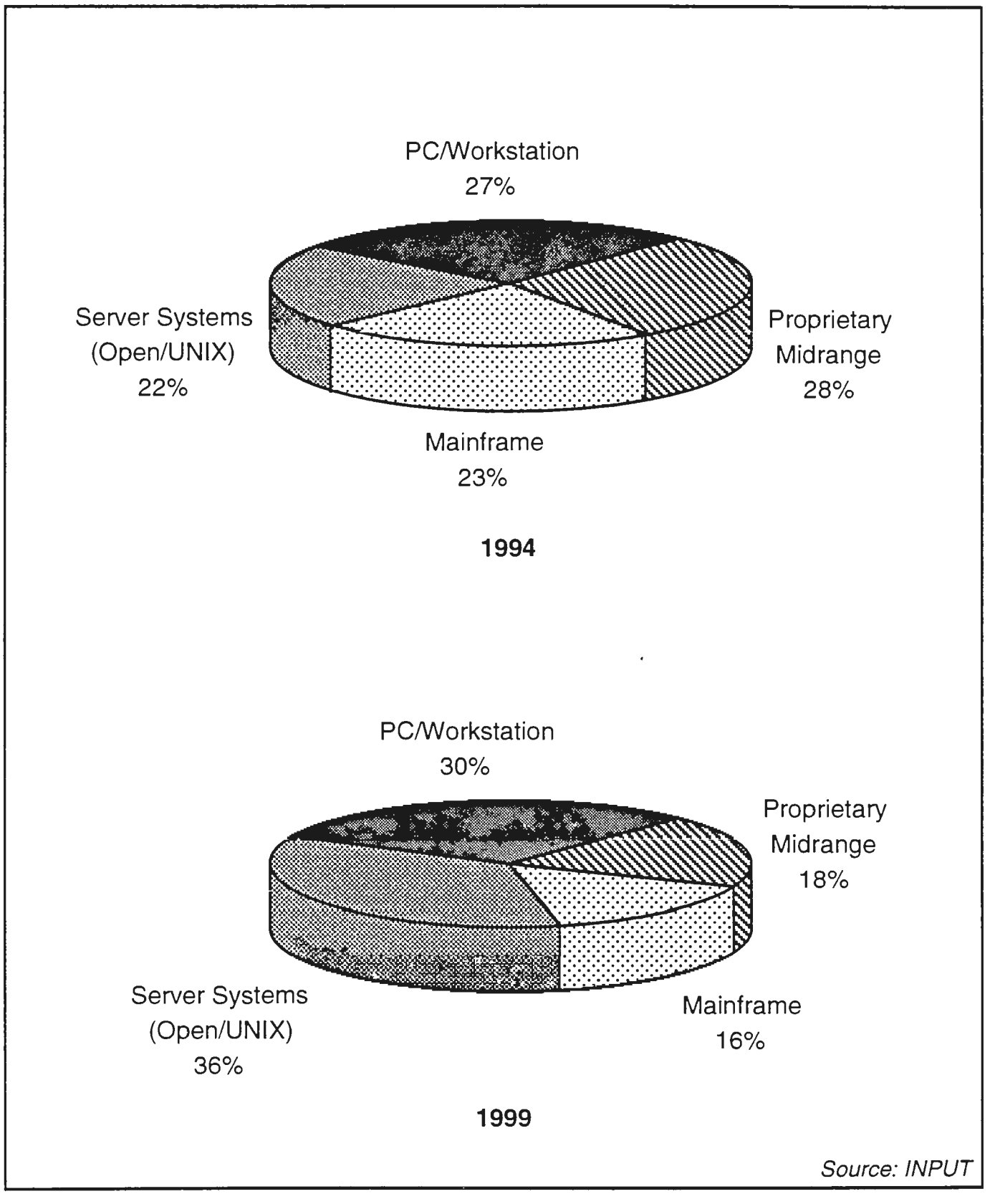
Exhibit II-1

European Customer Services by Computer Platform



Source: INPUT

Much of the market growth associated with client/server technology will be in non-remedial, high-value services. In complex client/server environments, basic services such as equipment maintenance and software product support, though necessary, are less important than value-added and professional services which enable users to use the new technology in the most effective way. However, there is still a lack of

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service providers who can genuinely claim to be expert in the delivery of services in client/server environments.

The evidence of the user survey conducted for this report suggests that most organisations planning to make the transition to client/server computing underestimate the extent to which their support need will increase. However, on making the transition, organisations quickly come to appreciate the complexity of the new environment and turn to outside experts for help.

Service providers competing in the client/server marketplace should not, however, assume that winning business will be easy. Client/server customers are looking for solid multivendor capability, specific skillsets and access to proven experts in the field. Furthermore, survey evidence suggests that current levels of client/server support are falling some way short of expectations.

In brief, the findings of the user survey suggest that service providers looking to win and retain business in the client/server marketplace must meet customer demand by taking the following actions:

- Develop effective multivendor service capability and, when required, be able to offer single source support services
- Promote access to experts and professional advice as a key element of the service offering
- Address shortfalls in service levels and in particular uptime, response time and restore time guarantees, which are vital in widely distributed client/server environments.

B
Users Demand Multivendor and Single Source Support Capability

A key objective of the user survey conducted for this report was to see how user attitudes to IT services and support change following the transition to a client/server environment.

Most users surveyed admitted that, prior to the transition, one of their highest support priorities had been to escape "vendor lock-in"; i.e. having been tied to a single service provider in the past, users looked forward to the freedom of choice which the move to a more open systems environment would bring. Ironically, however, the survey revealed that a substantial number of organisations adopting client/server architecture opted for a *single source* service arrangement, and that most organisations sought to keep the number of suppliers to a minimum by taking out *multivendor* service contracts. Exhibit II-2 contains quotations

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from respondents which aptly illustrate users' change in attitude following the transition to client/server computing.

Exhibit II-2

User Attitudes to Service Provision Before and After Transition to Client/Server Computing

Before	After
"(client/server) will reduce our support exposure to one vendor"	"It is difficult to find (a supplier) who will take full responsibility, but that is our aim"
"We doubt the ability of one supplier to support the new architecture"	"We are assessing the possibility of outsourcing to a single vendor"
"We expect to spread supplier risk, so that we can switch if one fails to perform".	"Managing multiple support contracts is the biggest headache".

Source: INPUT

Almost 60% of the organisations surveyed used multiple service providers following the transition to client/server computing, with just over 40% using just one supplier. However, over a quarter of organisations admitted that they had switched from multiple to single source supply *following* the transition to client/server. Exhibit II-3 shows how organisations changed their service arrangements.

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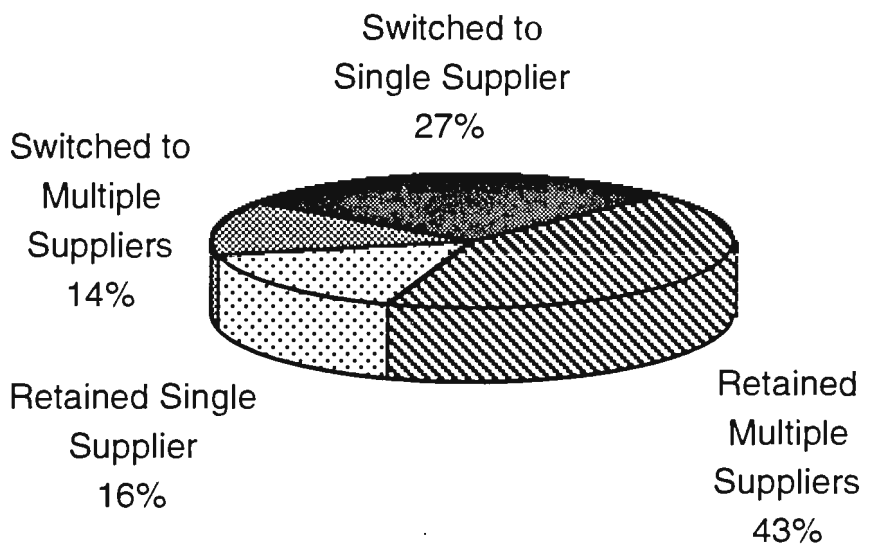
Exhibit II-3

Change in Service Arrangements Following Transition to Client/Server Systems



Sample of 90 European users. *Source: INPUT*

There are currently few service providers who are able and willing to take complete responsibility for the support of large-scale client/server installations, but these findings suggest that there is considerable demand for such a capability.

However, even those organisations which have not taken the *one-stop shop* approach to their service needs appear to be taking steps to limit the number of suppliers in a client/server environment.

The survey revealed that just over half of the sample had at least one multivendor service contract with one or more of their suppliers. Also, almost 30% of those without a multivendor contract said that they were likely to take out such a contract in the future.

Service suppliers should note that, in a client/server environment, the ability to offer multivendor service capability is no longer a differentiator, it is a prerequisite. Increasingly, customers are looking for multivendor service capability not as a solution in itself, but as a means to achieving a solution.

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C
Access to Expertise is the Key to Service Partnerships

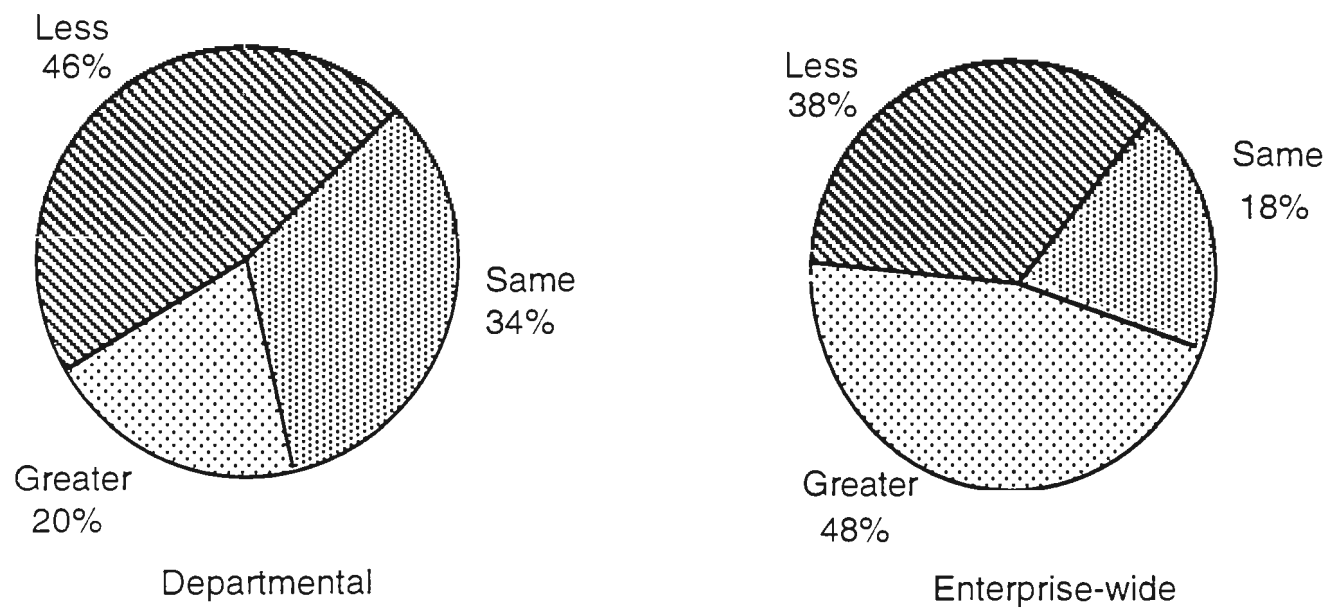
Fifty per cent of the organisations in the survey had implemented client/server systems at departmental level only, while the other 50% had implemented full enterprise-wide systems. This fact was influential in terms of the respondents' perceptions of how their support needs have changed.

As shown in Exhibit II-4, almost 50% of the enterprise-wide users perceived that their support needs were greater following the transition to client/server, compared with only 20% of departmental users. However, it was evident that enterprise-wide users were far more aware of the importance of support and were better able to articulate the reasons why their support needs had changed.

Amongst the most mentioned reasons for increased support need were the greater complexity of client/server applications and the need for new skillsets. Most respondents stressed the increased need for *expert* help from suppliers who could demonstrate genuine client/server service capability.

Exhibit II-4

Impact of Client/Server on User Support Need



Sample of 90 European users.

Source: INPUT

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Exhibit II-5 shows user satisfaction with a number of service features. Access to a client/server expert, whether in person or by phone, was rated the most important service feature. However, service providers should take note that these are also the areas in which users are undersatisfied.

Exhibit II-5

User Satisfaction with Client/Server Support Services

Sample of 90 European users (standard error = 0.1) *Source: INPUT*

Clearly, users operating in a client/server environment are encountering problems which require the application of specific knowledge and professional expertise. This fact is reflected in the way users view their relationship with their service providers, as shown in Exhibit II-6.

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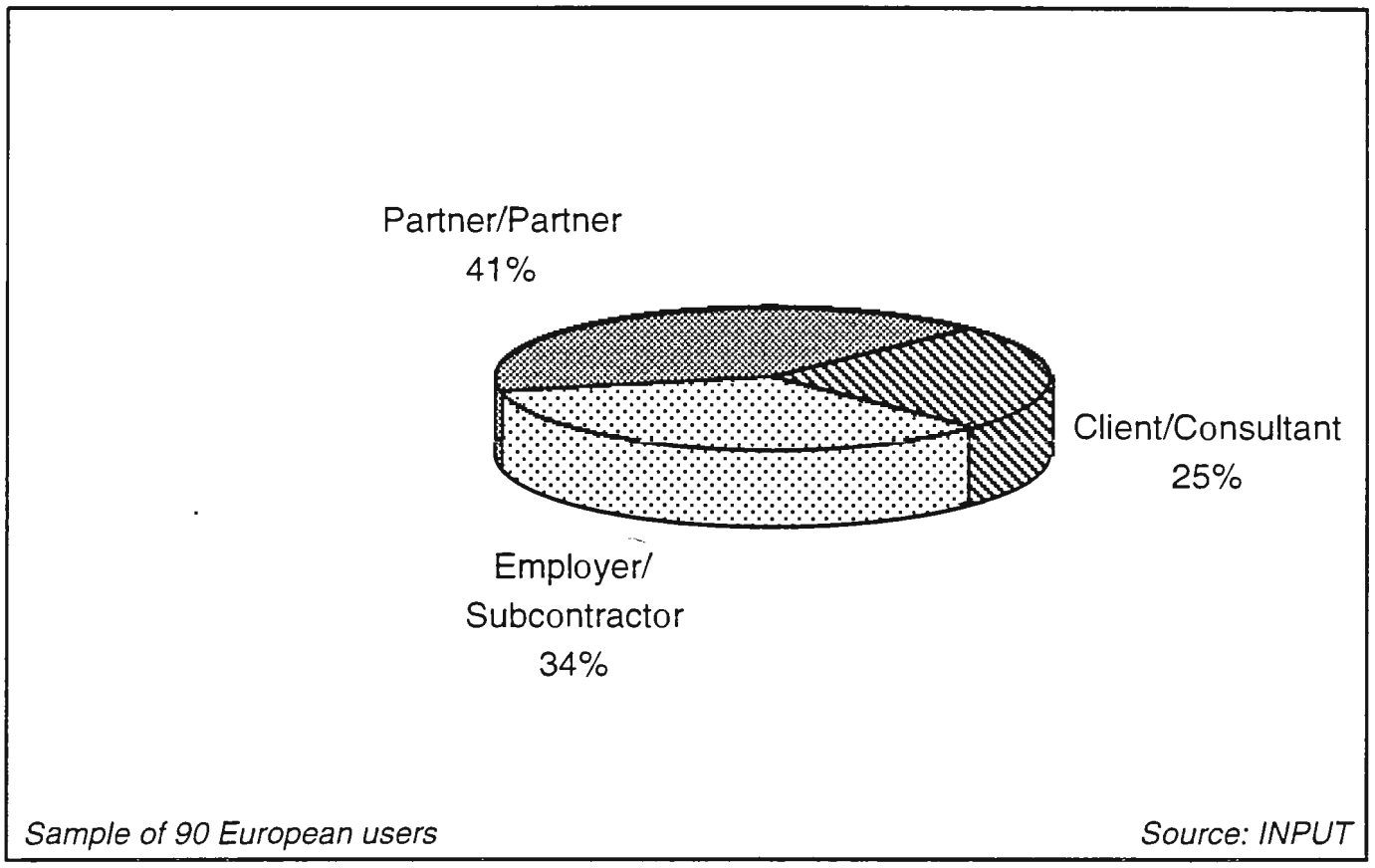
Exhibit II-6

How Users View the Relationship with their Service Suppliers



Only a third of organisations consider the relationship between themselves and their principal service provider to be that of employer to subcontractor, where the provider is employed to perform a limited set of support tasks.

Two-thirds of organisations consider the relationship with their service provider to be on a professional level, describing it either as a client/consultant relationship or as a professional partnership.

These findings reflect the development of a new attitude towards service providers. Client/server users clearly value a more professional relationship with their service providers and are looking for proven client/server expertise when they choose a service partner.

D
Service Suppliers Must Deliver on Systems Availability Guarantees

The user survey revealed differences between the contracted support arrangements for server and client equipment. Exhibit II-7 shows the pattern of support arrangements for equipment maintenance.

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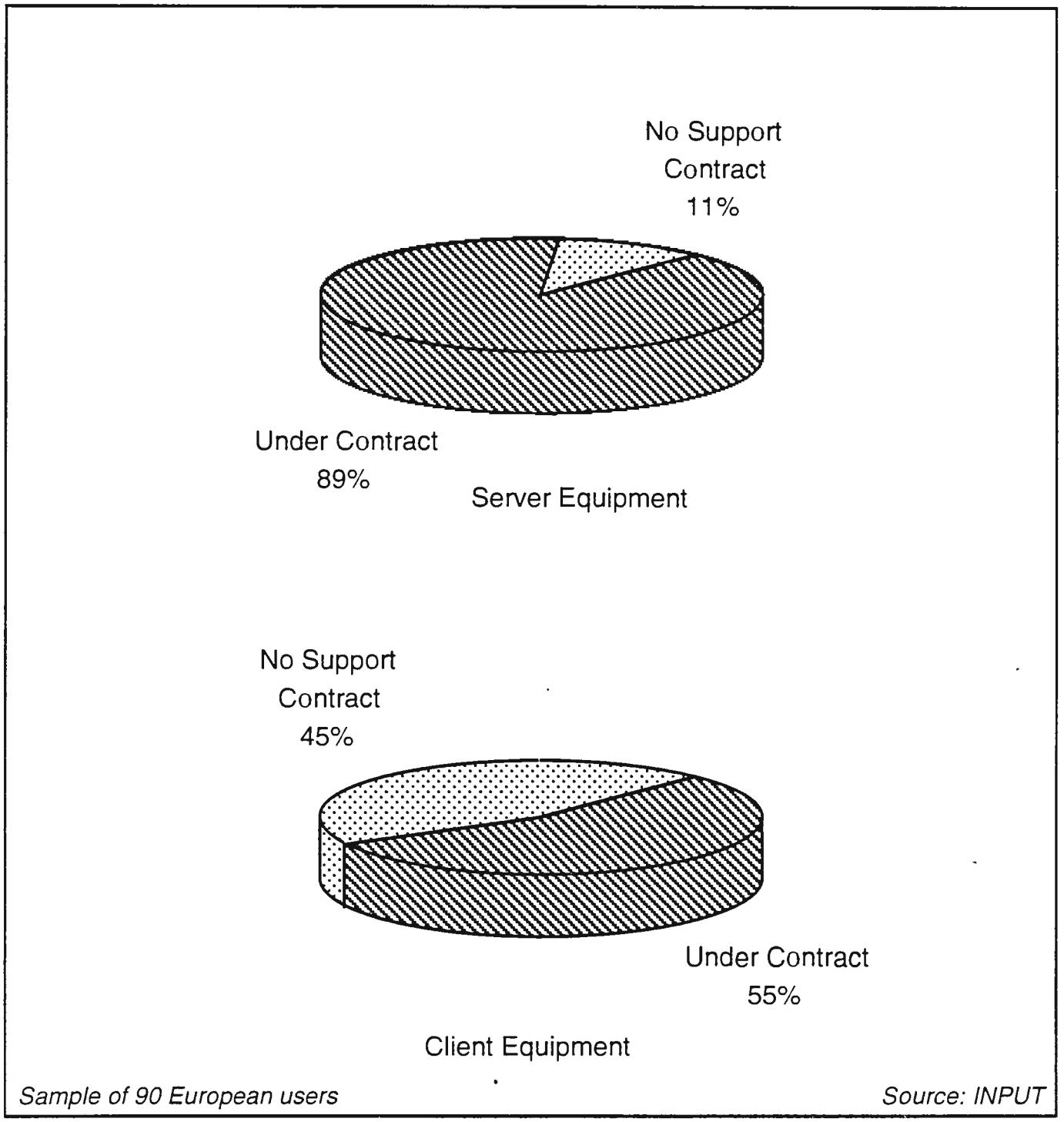
Exhibit II-7

Maintenance Arrangements for Server and Client Equipment



Sample of 90 European users *Source: INPUT*

While almost all server equipment is covered by a formal maintenance contract, only just over half of all client equipment is under contract. Most organisations clearly consider a formal maintenance agreement for server equipment to be essential, but are less concerned about client equipment (PCs), which is extremely reliable and is typically covered by an extensive warranty. Although generous server warranties are becoming increasingly commonplace, users still feel the need to pay for maintenance contracts which provide additional levels of cover.

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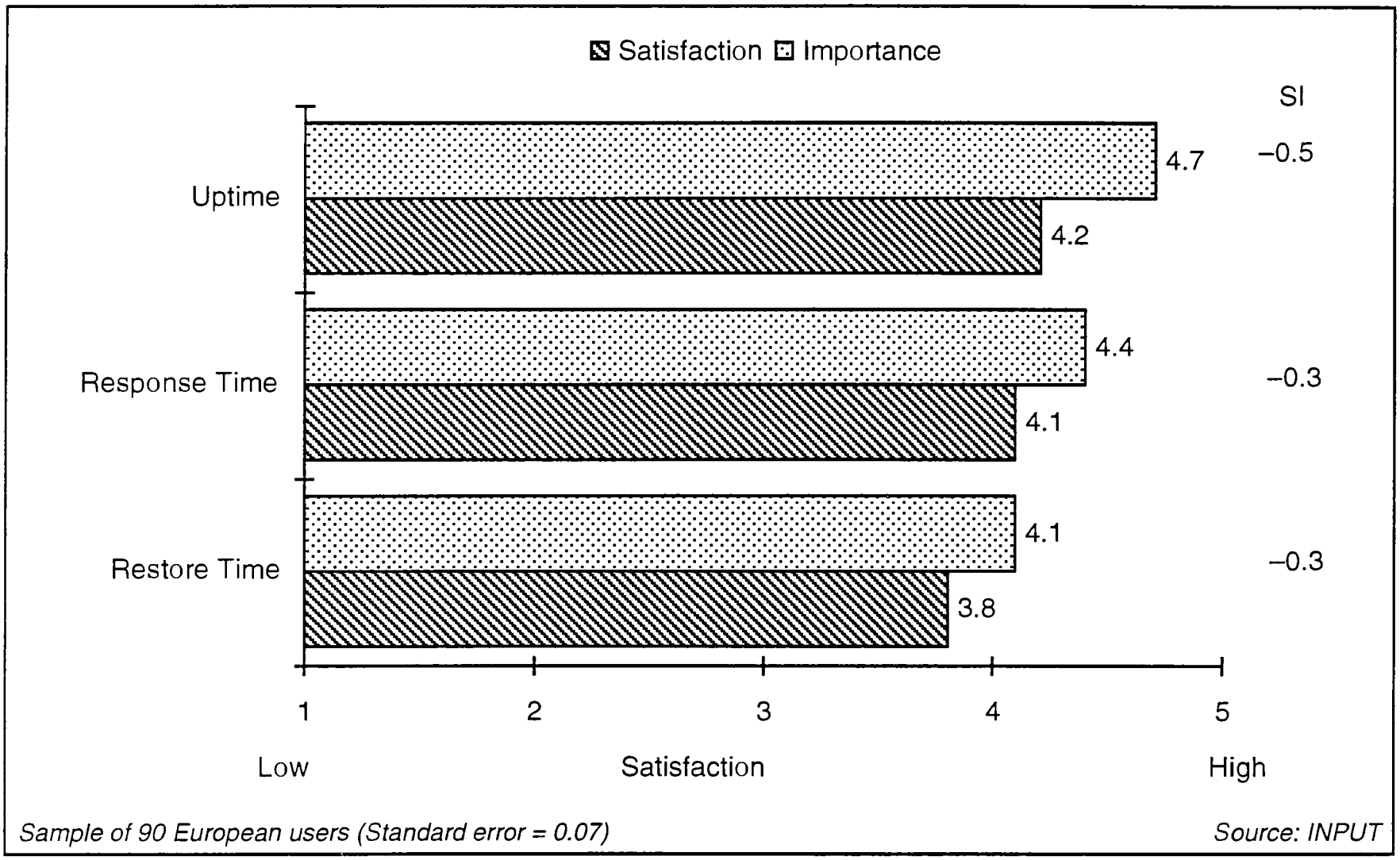
Today *availability* is the key measure of IT systems performance, and hence availability guarantees are an increasingly important part of server support contracts. Not surprisingly, users of client/server systems consider such guarantees to be highly important (see Exhibit II-8). However, satisfaction levels fall significantly below expectations.

Exhibit II-8

User Satisfaction with Server Support Guarantees



Sample of 90 European users (Standard error = 0.07) *Source: INPUT*

The clear implication is that service providers are underperforming in the key services aimed at optimising server availability.

Service providers with ambitions in the client/server marketplace must ensure that critical service levels are being met, as a matter of urgency. Given the highly competitive open market conditions that exist, only those service organisations which can deliver contract guarantees will be allowed to succeed.

However, those vendors who can deliver on contract guarantees and back this up by providing easy access to client/server expertise, will find no shortage of companies willing to do business with them.

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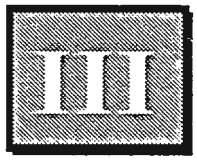

The Impact of Client/Server on Customer Services Markets

A
Transition to Client/Server Creates Widespread Service Opportunities

The trend towards client/server technology is completely re-shaping the market for software and services. However, there is still a limited choice of software products, and a lack of suitably qualified experts who have implemented client/server systems successfully. This is true both within customer IS departments and in the vendor community.

The strength of customer demand for client/server solutions is generating many new business opportunities for vendors. Users are seeking more products, expertise and services from vendors in order to implement and support client/server systems. For example:

- Migration from proprietary to open servers is creating a fast-growing market for server systems software designed to integrate and manage networked applications and data
- Lack of in-house skills is creating high levels of demand for network-related services such as systems integration, network application services and software product support
- The growing complexity of large networked systems is stimulating demand for outsourced desktop services, where a vendor assumes full responsibility for managing the equipment, software, network and user support.

In response to these demands, vendors must invest in re-skilling staff for client/server and re-positioning their software and service portfolios. Vendors must also acknowledge the shifts of power and responsibility which are occurring between IS management and their user budget holders. IS management wants some freedom from the disciplines and restrictions of host-based mainframe and PC-based systems.

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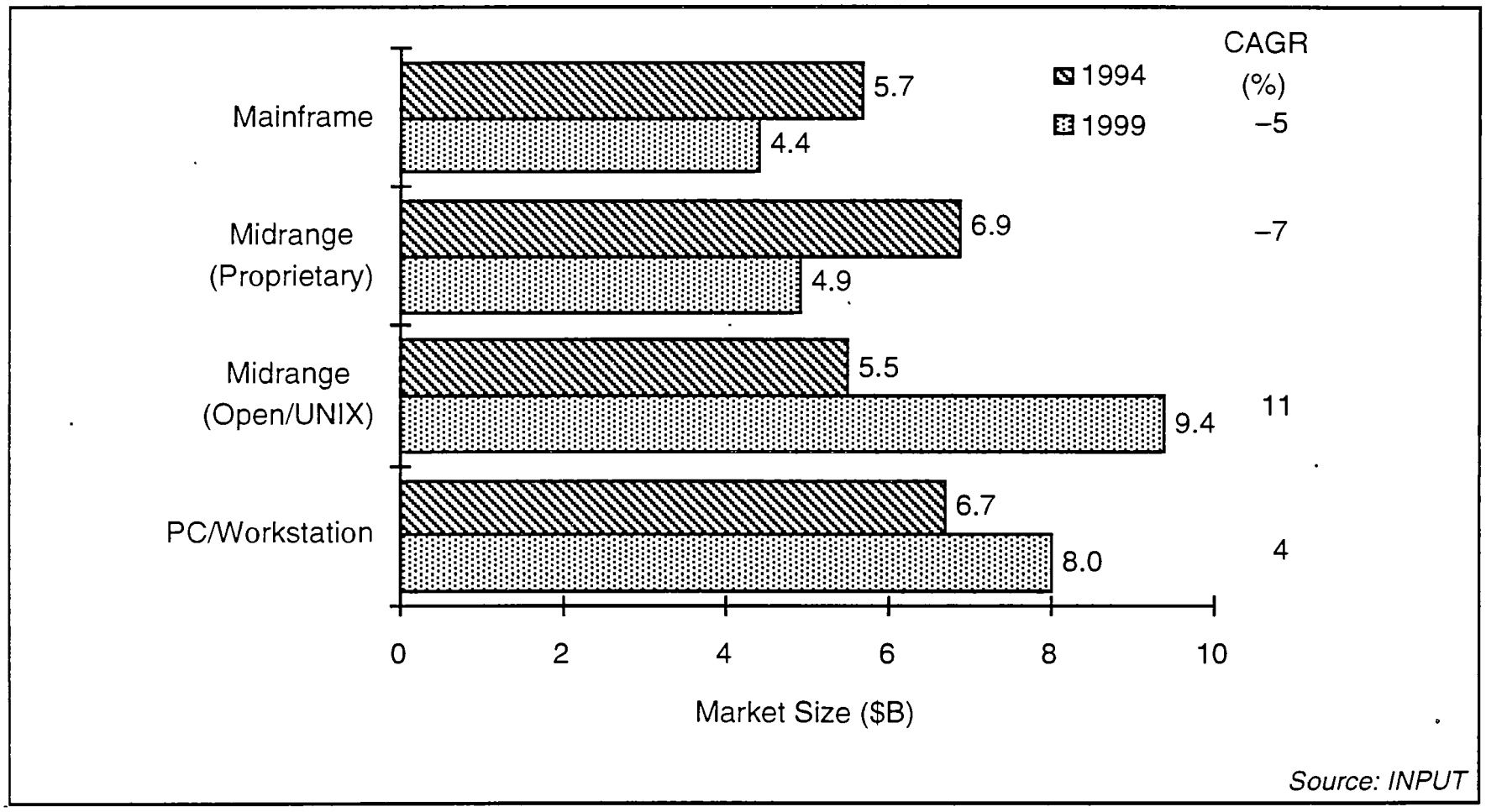
User management wants to extend its positive experience of the flexibility of PCs into networked applications.

Exhibit III-1 illustrates the degree to which client/server technology is influencing the delivery of customer services. It shows an analysis by computer platform of how customer services revenues are distributed in 1994, and forecasts the position in 1999. While services on proprietary platforms are in severe decline, services related to client/server technology, particularly the open/UNIX server market, will experience significant growth. The open server and PC markets combined (i.e. effectively the client/server market) will collectively represent 65% of the customer services market by 1999.

Exhibit III-1

European Customer Services – Market Growth by Platform, 1994-1999 ($Billions)



Source: INPUT

At a more detailed level, the effects of client/server take-up on the equipment services, systems software support and education & training markets are discussed in the remaining sections of this chapter.

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B
Equipment Services Stimulated by Client/Server Trend

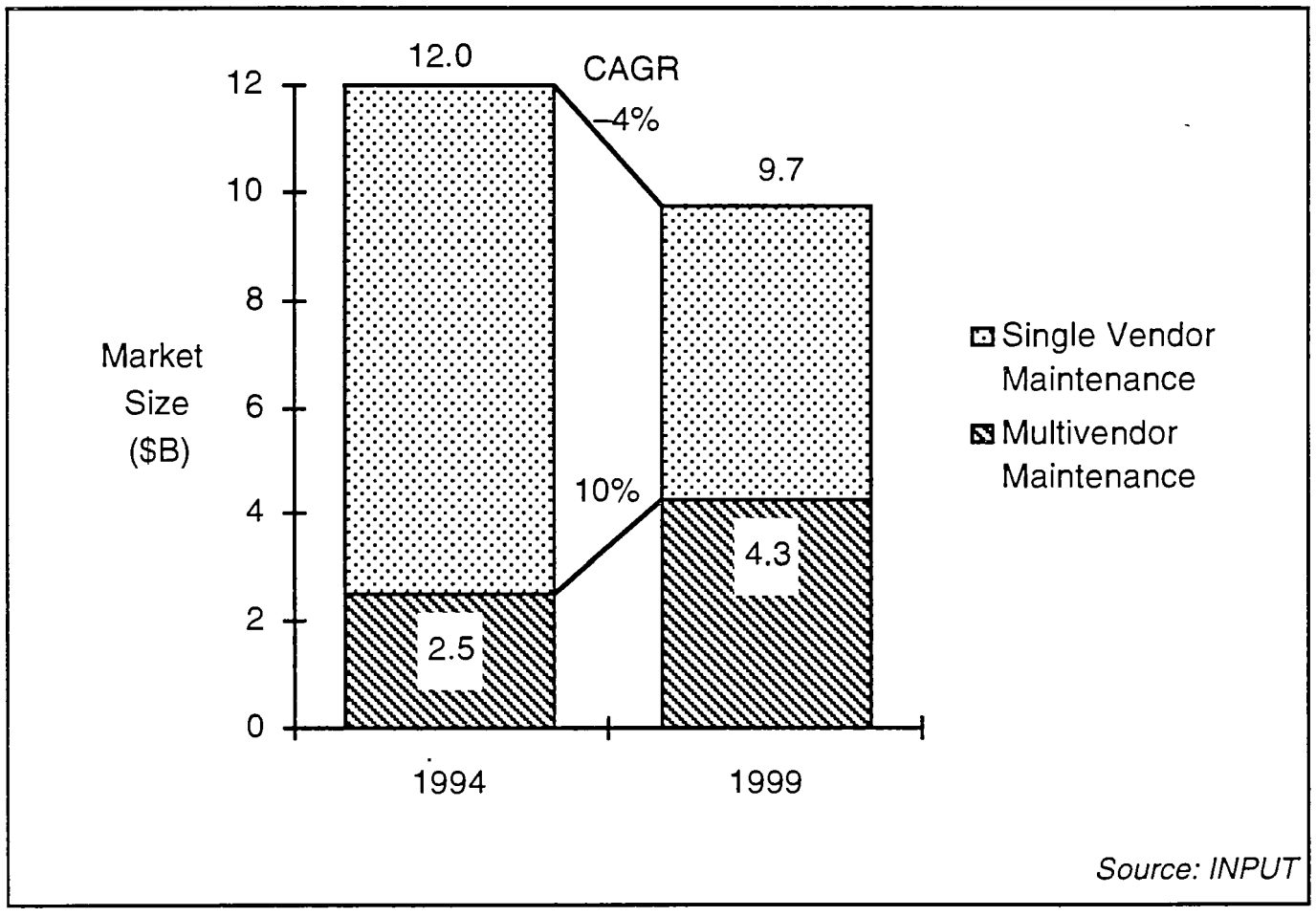
The equipment services market combines equipment maintenance with environmental services. In 1994, the majority of environmental services, such as network installation, were already client/server-related. In contrast, only a quarter of equipment maintenance revenues were derived from open server systems.

The true extent of the decline of the equipment maintenance market has only recently become apparent. In 1993/4, the market for equipment maintenance across all platforms fell by 5%, and is forecast to fall by 4% overall by 1999. However, the trend towards client/server architecture is changing the dynamics of the equipment services markets and is stimulating considerable competitive activity amongst the leading players such as the manufacturers and the third party maintainers.

In particular, suppliers looking to prolong their maintenance revenue streams are increasingly turning to *multivendor maintenance* services. As shown in Exhibit III-2, this sector of the maintenance market is continuing to grow, against the overall trend.

Exhibit III-2

Multivendor Maintenance Market, Europe 1994-1999 ($Billions)



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C
Systems Software Vendors Focus on Server Market

The pace at which client/server architectures can be successfully adopted by the market is highly dependent on the speed with which vendors can introduce suitable software products. There is hardly a single new software product announced today which does not carry a "client/server" label, but it will still take some time for these new products to become part of normal systems implementation practice.

Growth in the PC software market in 1993/4 has slowed for the leading vendors such as Microsoft, Novell and Lotus. As a result, these PC software vendors are turning their attention to the server software market. Competition is becoming very fierce as the protected proprietary PC and mainframe markets move to open server platforms.

Client/server growth prospects are stronger in the server market than for PC's. An optimistic forecast assumes that the server market will grow from about 35% to 50% of the total client/server market by 1998, at the expense of the client systems software market. This is due to the changing buying habits of the customers as they move their spending away from proprietary to open server systems.

In the last year, the market for the support of software products has opened up, with support vendors beginning to compete on services, price and performance. Support services for both datacentre and desktop software products are undergoing radical changes in the hands of the leading software product vendors, and for the first time customers now have real choice. The drive towards client/server and open market conditions will generate significant market growth, as shown in Exhibit III-3.

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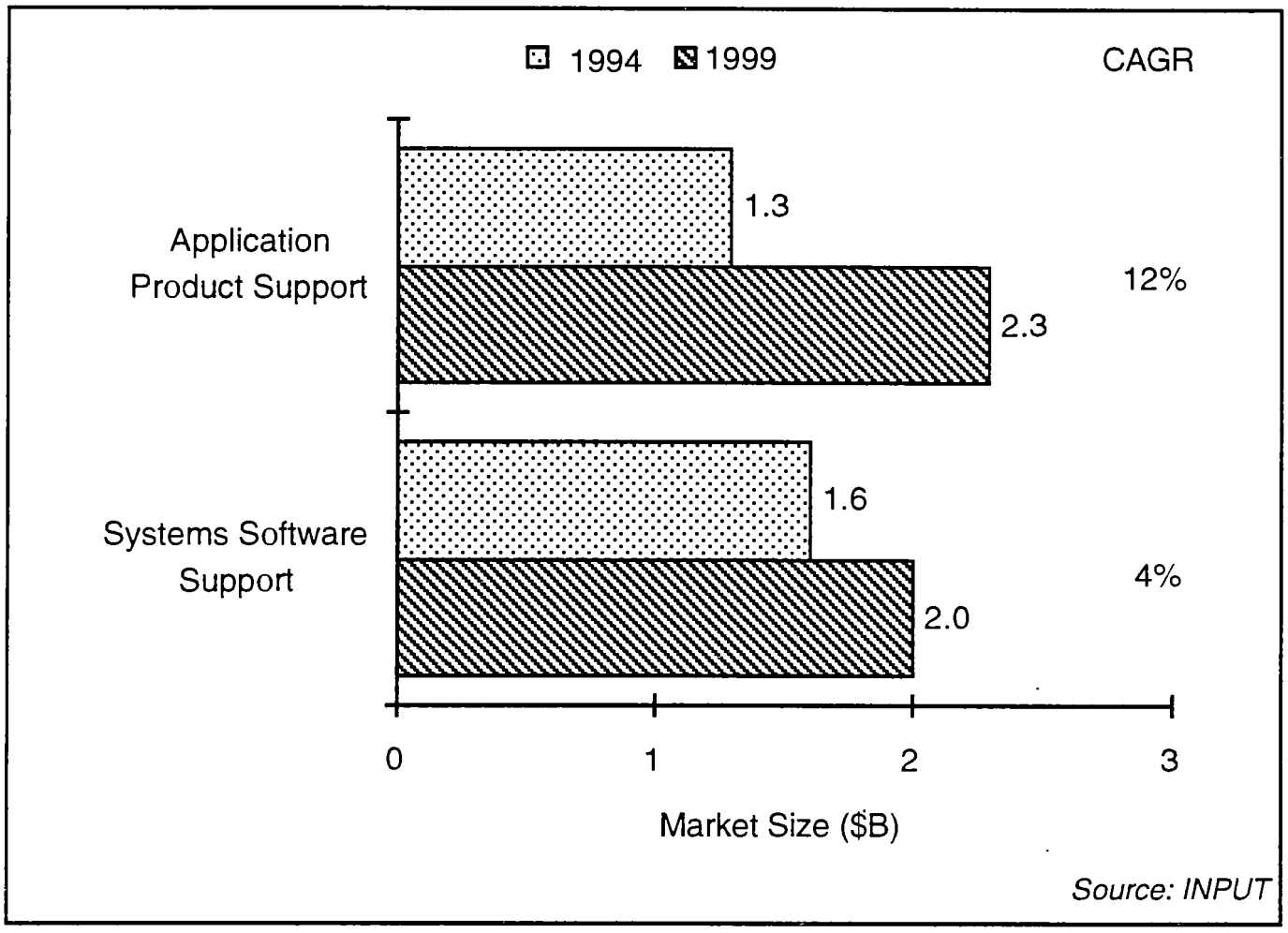
Exhibit III-3

Software Product Support Market, Europe 1994-1999 ($Billions)



Source: INPUT

The keys to success for software product support vendors will be their ability to offer tailored service levels priced according to service value, whilst containing the cost of delivery. The next 5 years will see suppliers competing at every level to promote innovative software product support services.

D. Client/Server Computing Drives Education and Training Market Growth

The education and training sector is forecast to grow by 4% CAGR across all platforms by 1999. However, this relatively modest overall growth rate reflects a severe underlying decline in the market for training on datacentre equipment and software products. Exhibit III-4 shows the impact of training on client/server products such as RDBMSs and server middleware. In 1994, some 30% of training fees were related to client/server and this is expected to increase to between 70% and 90% in the next five years.

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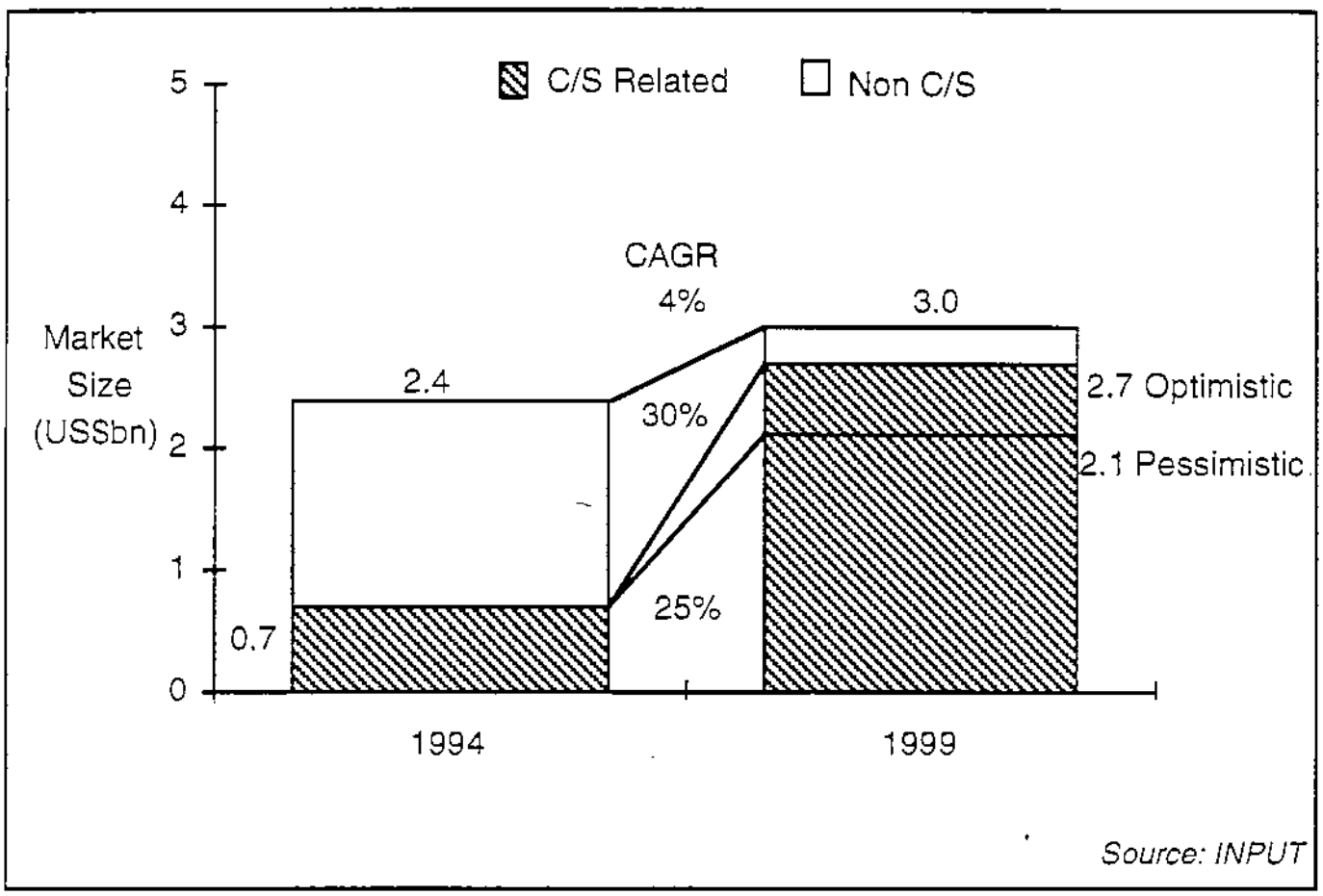
Exhibit III-4

Impact of Client/Server — Education and Training Market, Europe



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IV

Moving to Client/Server – How User Support Needs Change

A
Transition to Client/Server Changes Support Priorities

One of the principal aims of the user survey was to assess the ways in which users' support needs change following the implementation of client/server systems. Hence, the user survey targeted organisations that have implemented client/server systems within the last two years.

As shown in Exhibit IV-1, over half of the organisations sampled were downsizing from a datacentre environment. The largest proportion of these (almost 40% of the sample) came from a midrange datacentre, while just over 10% were previously mainframe users. A third of the organisations previously used both a datacentre and stand-alone workstations. One in six of the organisations was upsizing from stand-alone workstations.

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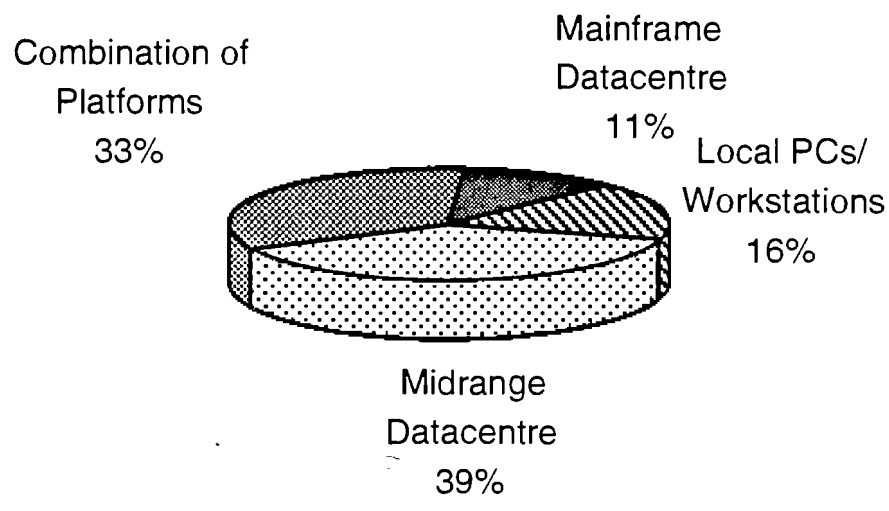
Exhibit IV-1

Computing Platforms Prior to Client/Server Implementation



Sample of 90 European users

Source: INPUT

Users were asked to consider which support issues had influenced their decision to move to client/server technology. They were also asked what they now consider the major support issues to be, following the implementation of client/server systems.

The most mentioned support issues pre- and post- client/server are shown in Exhibit IV-2.

Exhibit IV-2

Most Mentioned Support Issues Pre- and Post-Client/Server

Before	After
• Reduce Support Costs	• Ensure Support Availability
• Reduce Exposure to a Single Vendor	• Ensure Effective Supplier Relationships
• Coordinate Support of Distributed Applications	• Improve Client/Server Skills

Source: INPUT

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The most mentioned support issue pre-client/server was the cost of support. Many respondents cited reduction in support costs as an important motivating factor in their move to client/server technology.

However, cost of support was not mentioned as an issue following the transition to client/server. The fact that cost is no longer considered to be an important issue post-implementation can be interpreted in one of two ways: either the anticipated cost reduction has been delivered, or the real cost of client/server support is not immediately obvious.

INPUT's wider research on this subject suggests that organisations are frequently unable to assess the true cost of distributed computing in a client/server environment. All too often, organisations count the cost of hardware and software purchase, but underestimate the operational costs by a long way. INPUT estimates that as much as 75% of the cost of running a client/server network over three years can be attributed to operations and support.

Raising the level of user awareness in this area is key to the success of client/server support providers.

B

Support Need Grows as Client/Server goes Enterprise-Wide

Fifty per cent of the organisations in the survey had implemented client/server systems at departmental level only, while the other 50% had implemented full enterprise-wide systems.

Exhibit IV-3 shows that users' perceptions of how their support needs have changed are closely related to the scale of the implementation. Almost 50% of the enterprise-wide users perceived that their support needs were greater following the transition to client/server, compared with only 20% of departmental users.

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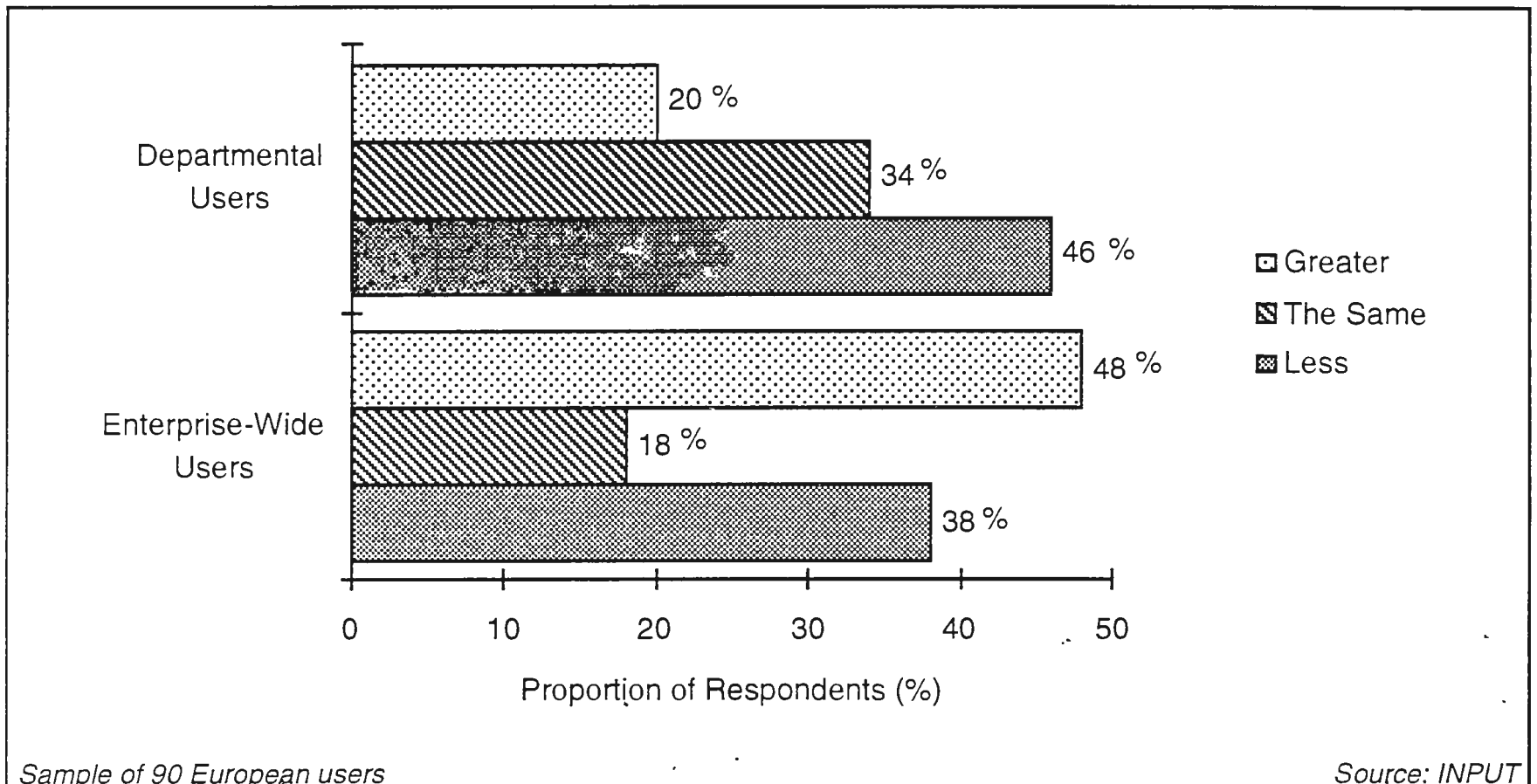
Exhibit IV-3

Change in User Support Need Following Transition to Client/Server



Sample of 90 European users

Source: INPUT

Taken at face value, these findings are perhaps not so surprising, enterprise-wide systems are, by definition, more complex and more difficult to manage and support. However, the supporting comments of the two groups of respondents reveal interesting differences in attitude and understanding. Enterprise-wide users were far more aware of the importance of support, and were better able to articulate the reasons why their support needs had changed; reasons given include:

- Greater dependence on the new systems
- The need for new skillsets
- Staffing increases
- Greater complexity of client/server applications.

These comments contrast sharply with the reasons given by organisations which have implemented departmental systems only. Almost half of these organisations believed that their support needs were less since the transition to client/server systems. Their comments included:

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- "Client/server systems are more robust"
- "The cost of supporting client/server is certainly less"
- "The department planned it that way".

These comments reflect a lack of understanding of the real issues associated with operating a client/server environment. They are also indicative of the problems faced by many organisations which have allowed local groups to make unilateral decisions about IS strategy. In the worst cases, such organisations are now finding the task of connecting and integrating disparate client/server networks extremely difficult.

C
Client/Server Drives Multivendor and Single Source Arrangements

The organisations surveyed were asked about the number of service suppliers they employed before and after the implementation of their client/server systems. Exhibit IV-4 shows that 60% of organisations retained exactly the same arrangements on moving to client/server. However, of those who changed their arrangements, most (over a quarter of the entire sample) switched from multiple to single source supply.

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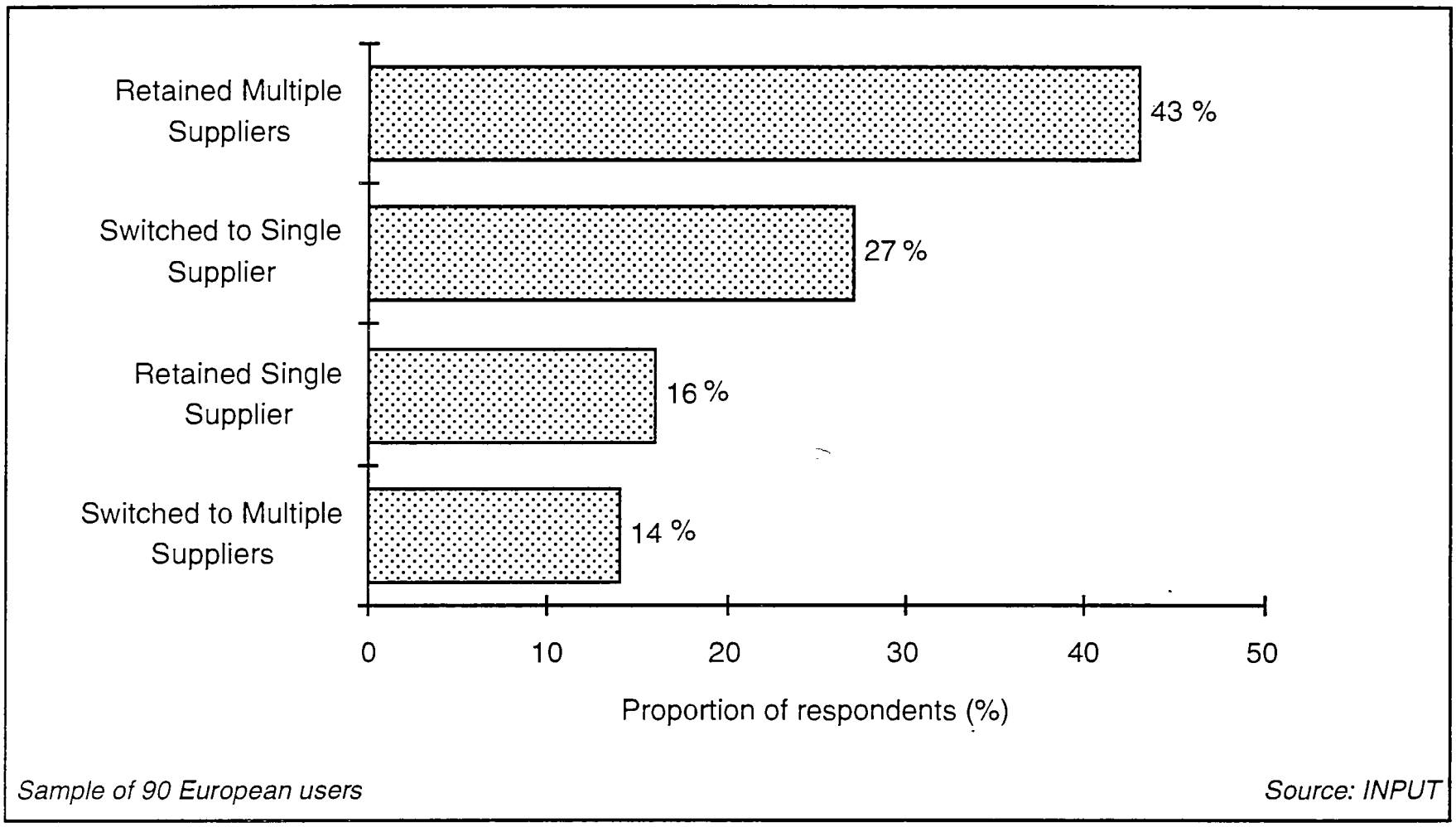
Exhibit IV-4

How Service Arrangements Changed Following Transition to Client/Server Systems



Sample of 90 European users *Source: INPUT*

Interestingly, of those organisations that switched to single source supply, several admitted that they had not expected to do so prior to implementing the new systems. In fact, a number of these organisations had anticipated that the *opposite* might be the case, as evidenced by comments such as:

- "(Client/server) will reduce our support exposure to one vendor"
- "We doubt the ability of one supplier to support the new architecture"
- "We expect to spread supplier risk, so that we can switch if one fails to perform".

The explanation for this apparent anomaly appears to be that users moving from a proprietary systems environment commonly adopt the view that client/server will release them from vendor lock-in. However, once the transition to client/server has been made, the same users quickly come to appreciate the difficulties of managing multiple-supplier

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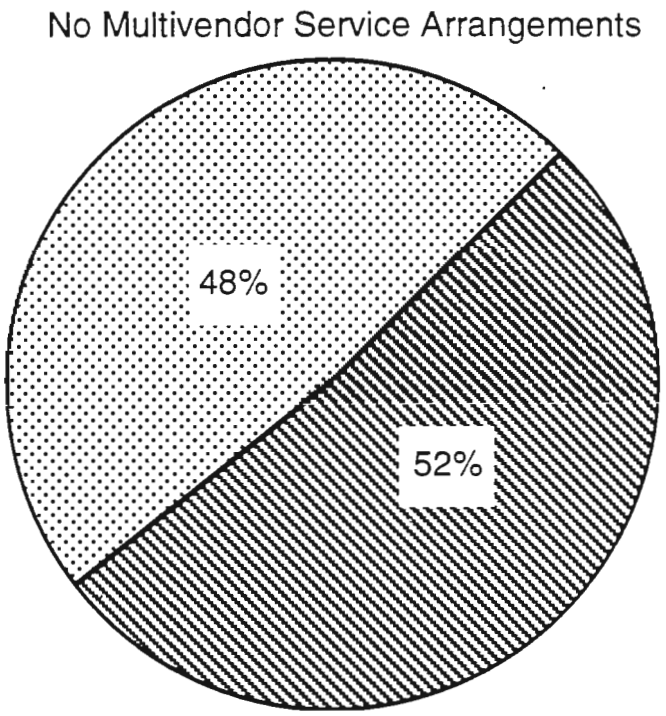
relationships. Hence, 27% of those organisations sampled switched to single source supply following the move to client/server computing.

While 60% of organisations used multiple-service suppliers following client/server implementation, the majority of them admitted to having some form of multivendor service contract with one or more of their suppliers. Exhibit IV-5 shows that just over half of the entire sample has at least one multivendor service contract.

Exhibit IV-5

Proportion of Organisations with A Multivendor Service Contract



Sample of 90 European users *Source: INPUT*

This result appears to suggest that while a good proportion of organisations are moving straight to single source service (as shown in Exhibit IV-4), even more organisations are adopting multivendor service arrangements on a selective basis, and hence are gradually reducing the number of service suppliers.

Even those organisations which do not currently have a multivendor service contract are willing to consider moving in that direction. As shown in Exhibit IV-6, just under 30% of those without a multivendor contract said that they were likely to take out such a contract in the future.

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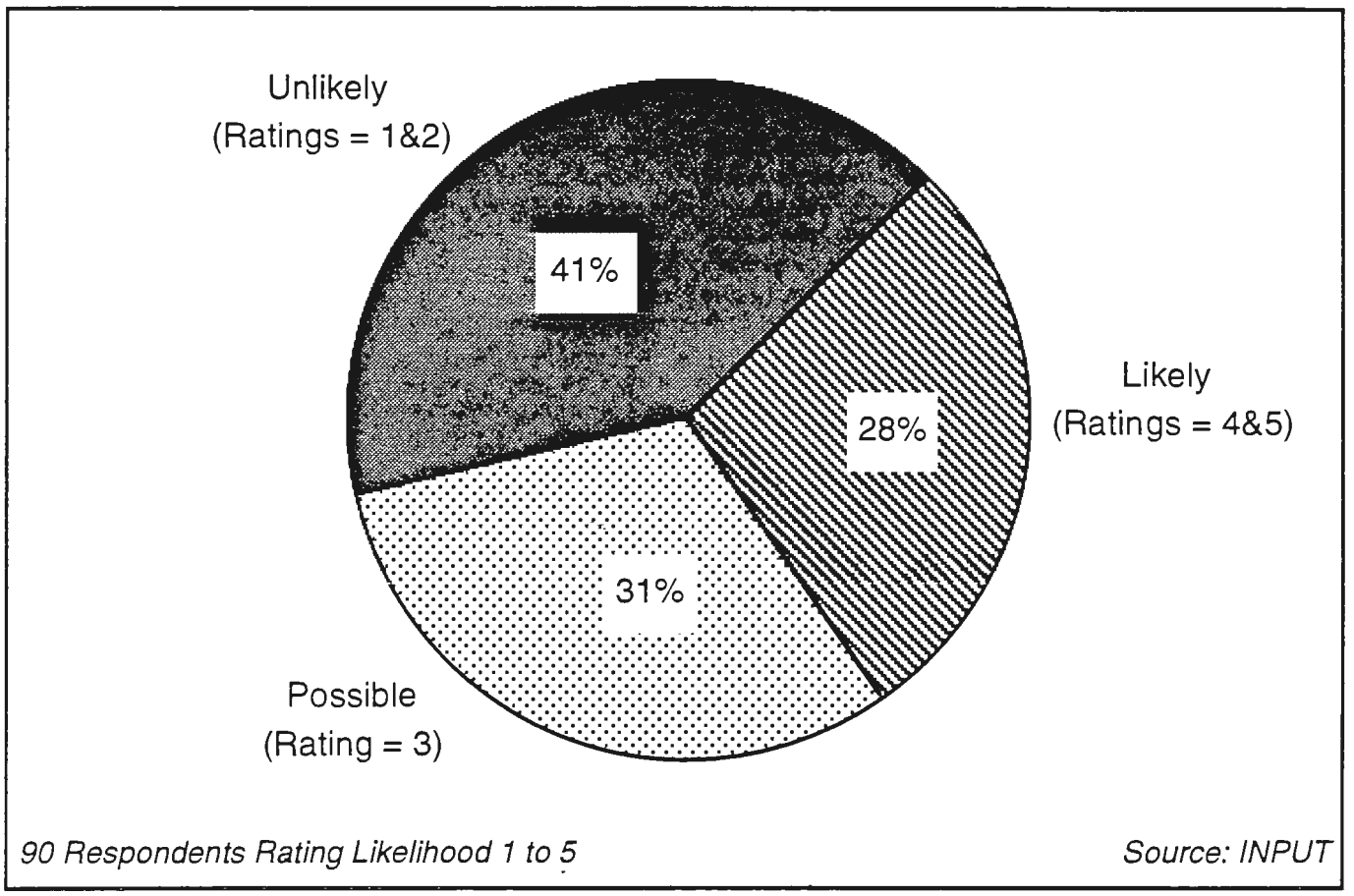
Exhibit IV-6

Likelihood of Organisations Adopting A Multivendor Service Contract



90 Respondents Rating Likelihood 1 to 5 *Source: INPUT*

A synthesis of the results recorded here appears to provide substantial evidence that in most cases users of client/server systems acknowledge the benefits of single source and multivendor service arrangements. While not all organisations immediately opt for the *one-stop shop*, most prefer to restrict the number of suppliers they use to a minimum.

Hence, the message for service vendors is that the ability to offer multivendor capability is an increasingly important part of the service portfolio.

D
Users Look to Equipment Vendors for Client/Server Support

Following client/server implementation, several respondents expressed concern about the ability of their internal IS groups to provide adequate support, and considered the use of external client/server expertise to be a vital requirement. Exhibit IV-7 shows user preference for the type of service supplier, and indicates that users perceive the big equipment vendors as the most suitable suppliers of client/server support.

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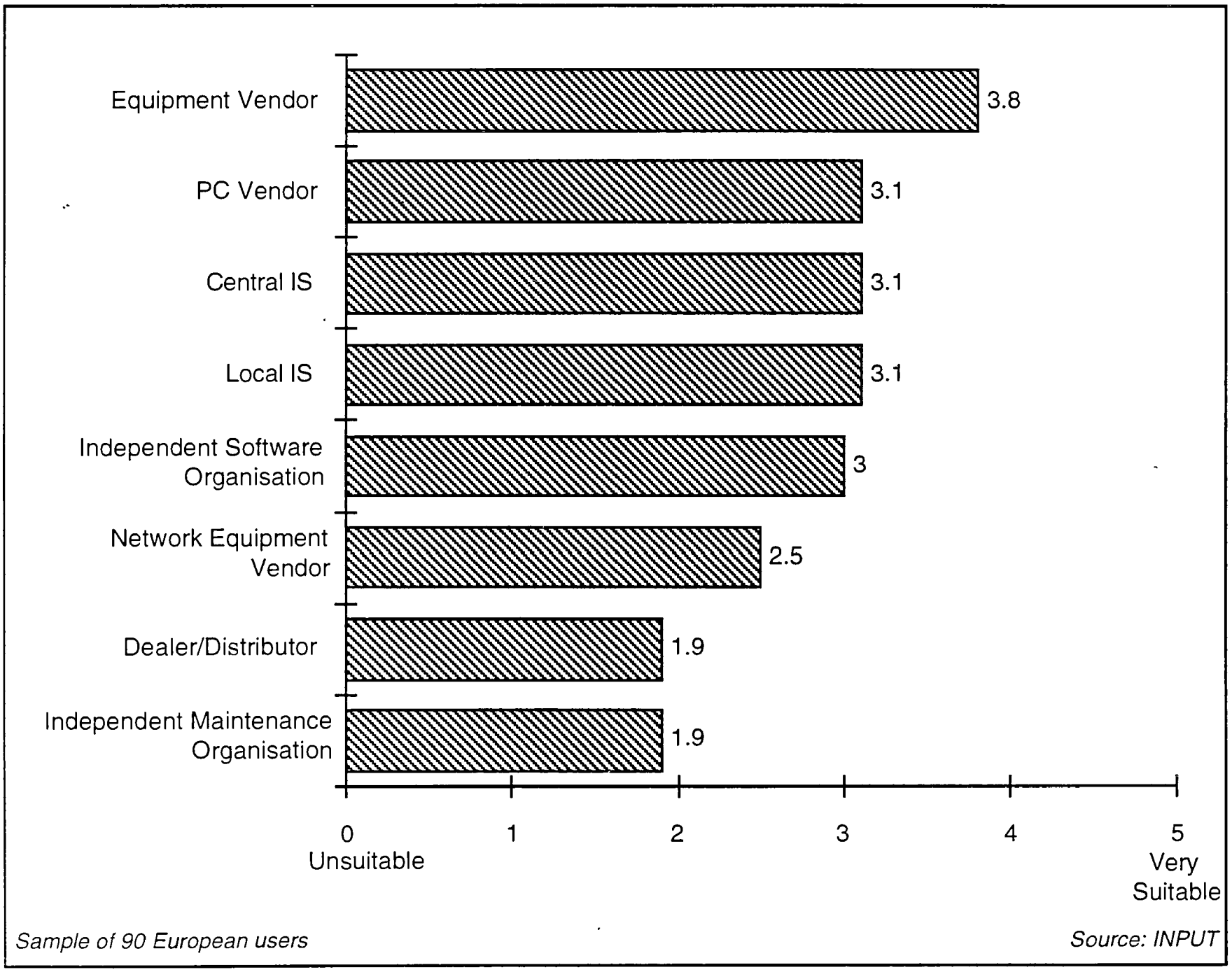
Supplier choice is highly valued by organisations, but there is an underlying requirement to minimise the number of suppliers in the interests of more effective control (as explained in section C). In client/server environments, the issue is not whether to use external suppliers, but how to select the best suppliers to support the environment effectively.

Customers will undoubtedly prefer to use those vendors who can demonstrate strong client/server credentials. The evidence of this survey suggests that users perceive the equipment vendors to be best placed to provide the support they need.

Exhibit IV-7

Suitability of Suppliers of Client/Server Support



Sample of 90 European users

Source: INPUT

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Client/Server Support – User Attitudes and Preferences

A
Servers Become the Focus for Support Contracts

The survey conducted for this report asked client/server users about their arrangements for equipment maintenance and for systems software support. In particular, users were asked to describe the type of support arrangement, whether contracted or not, and to distinguish between server equipment and client equipment (i.e. PCs).

Exhibit V-1 shows the pattern of support arrangements for equipment maintenance. Almost all server equipment is covered by a formal maintenance contract, whereas only just over half of all client equipment is under formal contract.

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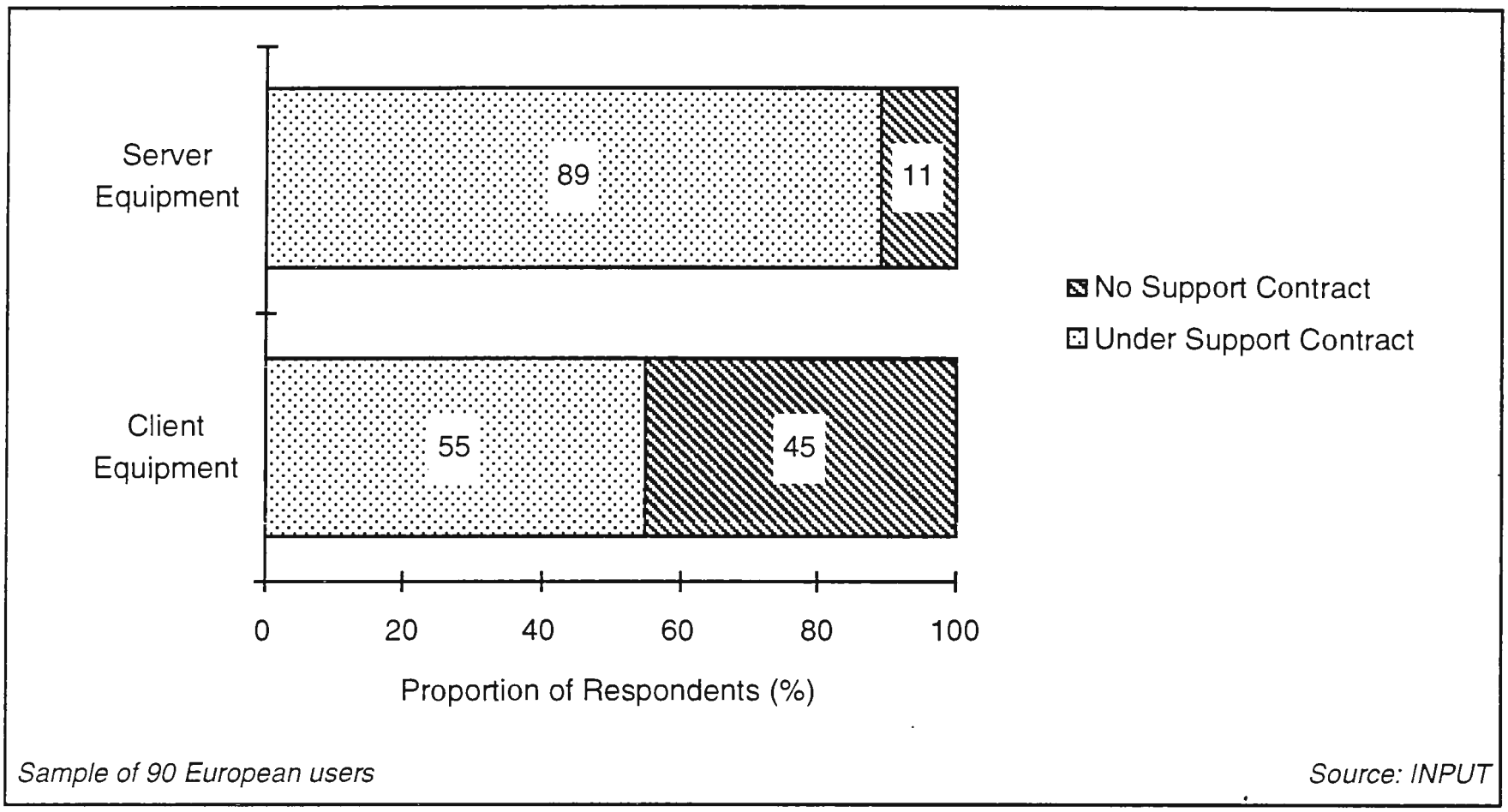
Exhibit V-1

Maintenance Arrangements for Server and Client Equipment



Sample of 90 European users

Source: INPUT

Most organisations clearly consider a formal maintenance agreement for server equipment to be essential, but are less concerned about client equipment. In part, this is a reflection of the fact that PCs frequently come with a lengthy warranty which may even last the lifetime of the equipment. Given the extreme reliability and relatively short lifespan of client equipment, users are almost universally reluctant to pay for additional or out-of-warranty maintenance contracts.

Although generous server warranties are becoming increasingly commonplace, users still feel the need to pay for maintenance contracts which provide additional levels of cover and, importantly, peace of mind. Equipment suppliers are no doubt keen to stress these points to prospective purchasers.

Exhibit V-2 shows the pattern of support arrangements for systems software. Evidently, the need for a formal support contract covering systems software is considered to be even greater than the need for a maintenance contract: only 3% of server equipment is not covered by a contract. This contrasts with the situation for client equipment, where a quarter of all PCs are not covered by a formal contract.

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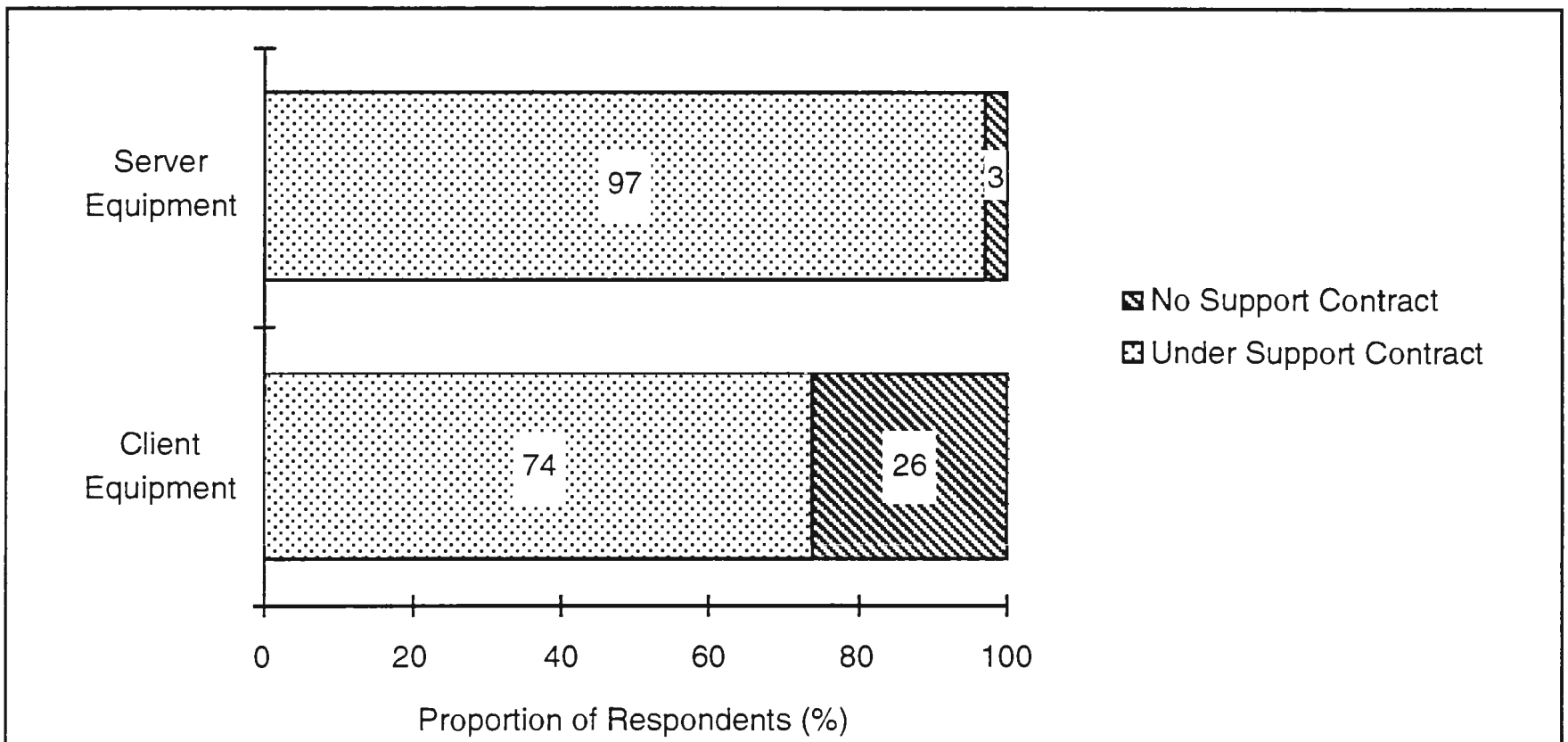
Exhibit V-2

Systems Software Support Arrangements for Server and Client Equipment



Sample of 90 European users

Source: INPUT

B
Users Value Access to Expertise Most

Users were asked to rate a number of support services in terms of their importance, and to indicate the degree to which they are satisfied with those services. The difference between the importance and satisfaction ratings for a given service (the *satisfaction index*) indicates the extent to which users are oversatisfied or undersatisfied. The optimum result is where importance and satisfaction ratings are the same i.e. where users' expectations are being exactly met.

Exhibit V-3 shows that users are oversatisfied with the basic equipment maintenance services by a long way. However, equipment maintenance is considered to be of low importance, a fact which reflects users' confidence in the reliability of the equipment. Remote diagnostic services, also considered to be of low importance, are also exceeding users' expectations.

It is interesting to note that users are satisfied with the standard of help desk services, but that general help desk facilities are considered far less

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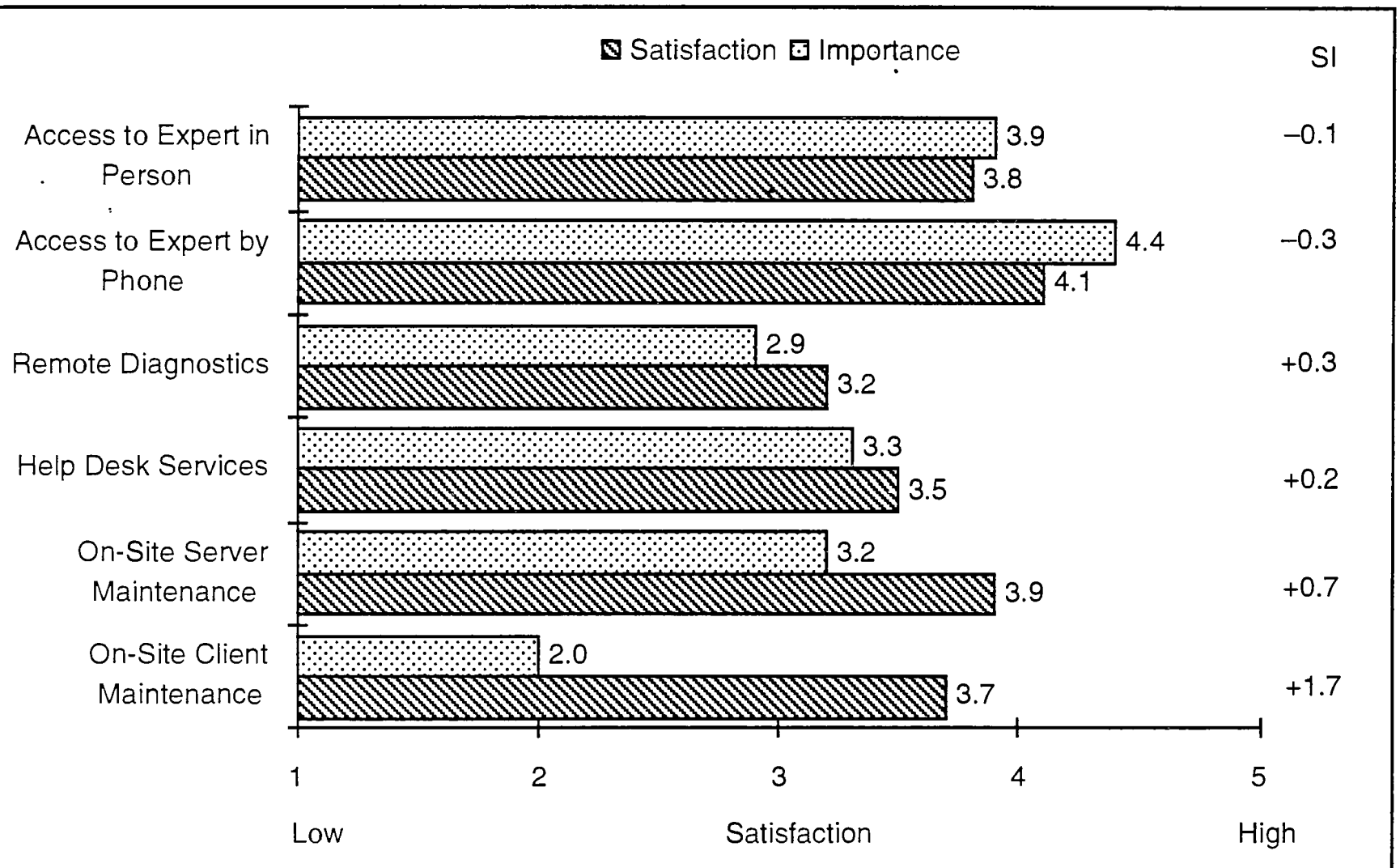
important than telephone access to a genuine expert. This was rated the most important service feature by far, but users are undersatisfied with the quality of this type of support. Access to an expert in person is also a highly valued service, but one with which users are marginally undersatisfied.

Evidently, users believe that the problems they are likely to encounter in a client/server environment are ones which require the application of specific knowledge, and hence client/server expertise is the most highly valued service characteristic.

This finding supports the generally held view that there is still a lack of suitably qualified experts who have implemented client/server systems successfully. Service suppliers are advised to make access to expertise a key component of their client/server service portfolios.

Exhibit V-3

User Satisfaction with Client/Server Support Services



Sample of 90 European users (Standard error = 0.1) *Source: INPUT*

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C
Users Dissatisfied with Server Systems Availability

Users were also asked to rate importance and satisfaction levels for more specific service features related to their server equipment. Exhibit V-4 shows that users are very dissatisfied with all of the most important service elements.

Exhibit V-4

User Satisfaction with Services Related to the Server

Service Feature	User Rating (1 = Low to 5 = High)		
	Importance Rating	Satisfaction Rating	Δ
Guaranteed Uptime	4.7	4.2	–0.5
Guaranteed Response Time	4.4	4.1	–0.3
Guaranteed Restore Time	4.1	3.8	–0.3

Sample of 90 European users (Standard error = 0.07) *Source: INPUT*

Service suppliers are underperforming in all of the key services aimed at optimising server availability. Users are least satisfied with uptime guarantees, which they consider to be the most important server service feature. However, response time (call out) guarantees and restore time guarantees are also not being met.

These results should give client/server service suppliers cause for concern. Systems availability is widely accepted to be the key measure of client/server performance, and yet users are far from satisfied with current service levels. While most service suppliers offer improved availability guarantees at a premium, and a number of vendors specialise in high availability systems for mission-critical installations, the indications are that the basic levels of service for client/server systems are not being adequately performed.

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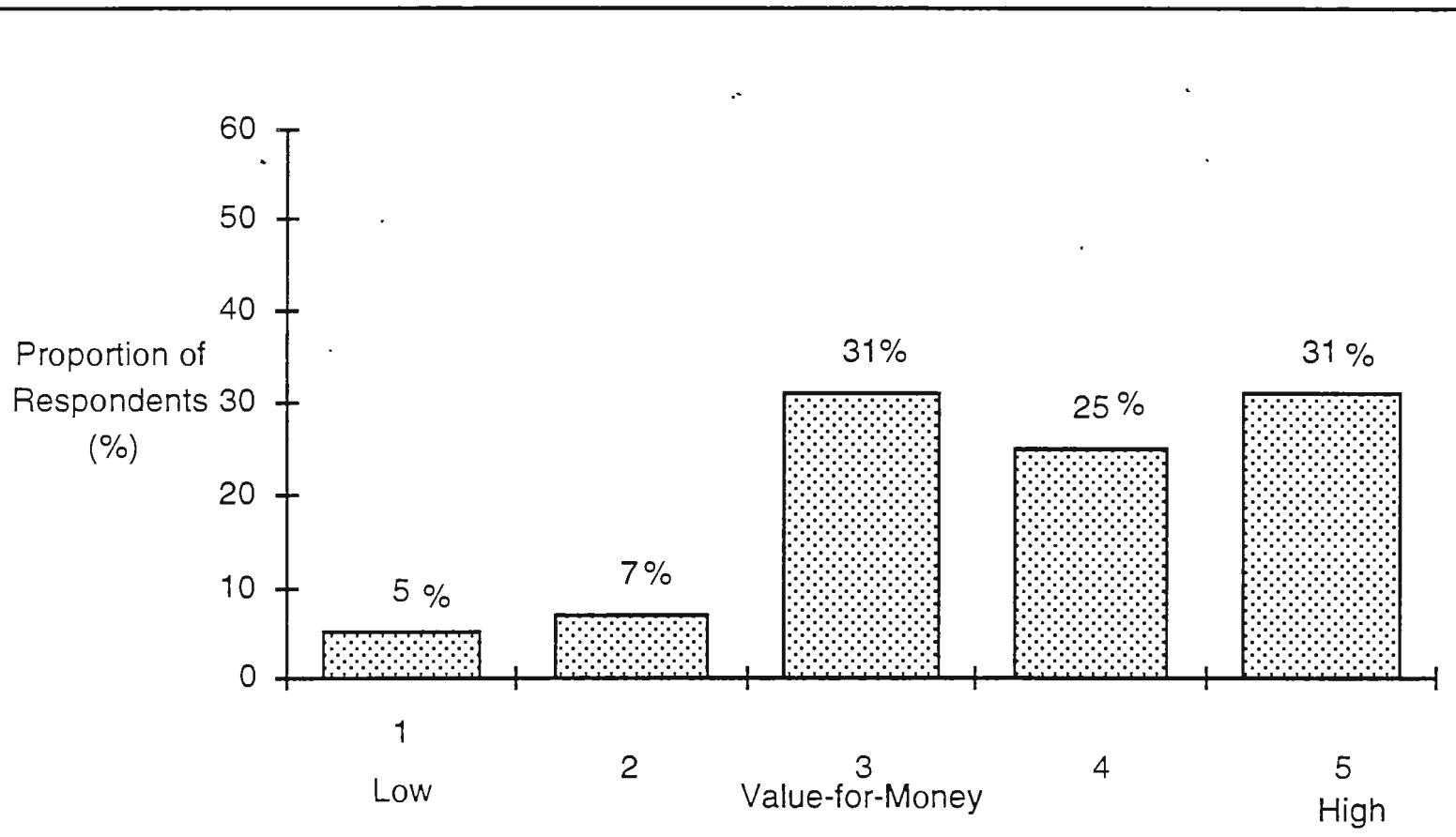
D
Value-for-Money for Server Support Could Improve

Users were asked to indicate the extent to which they consider their server support contracts value-for-money. Exhibits V-5 and V-6 show the value-for-money ratings for server maintenance and systems software support.

The average rating for both services was 3.7, which indicates that users are getting reasonable value-for money. Given that users were relatively dissatisfied with several key services (see section C), it is perhaps surprising that more users did not indicate low value-for-money ratings.

Exhibit V-5

Value-for-Money Ratings — Equipment Maintenance Contracts



Sample of 90 European users

Source: INPUT

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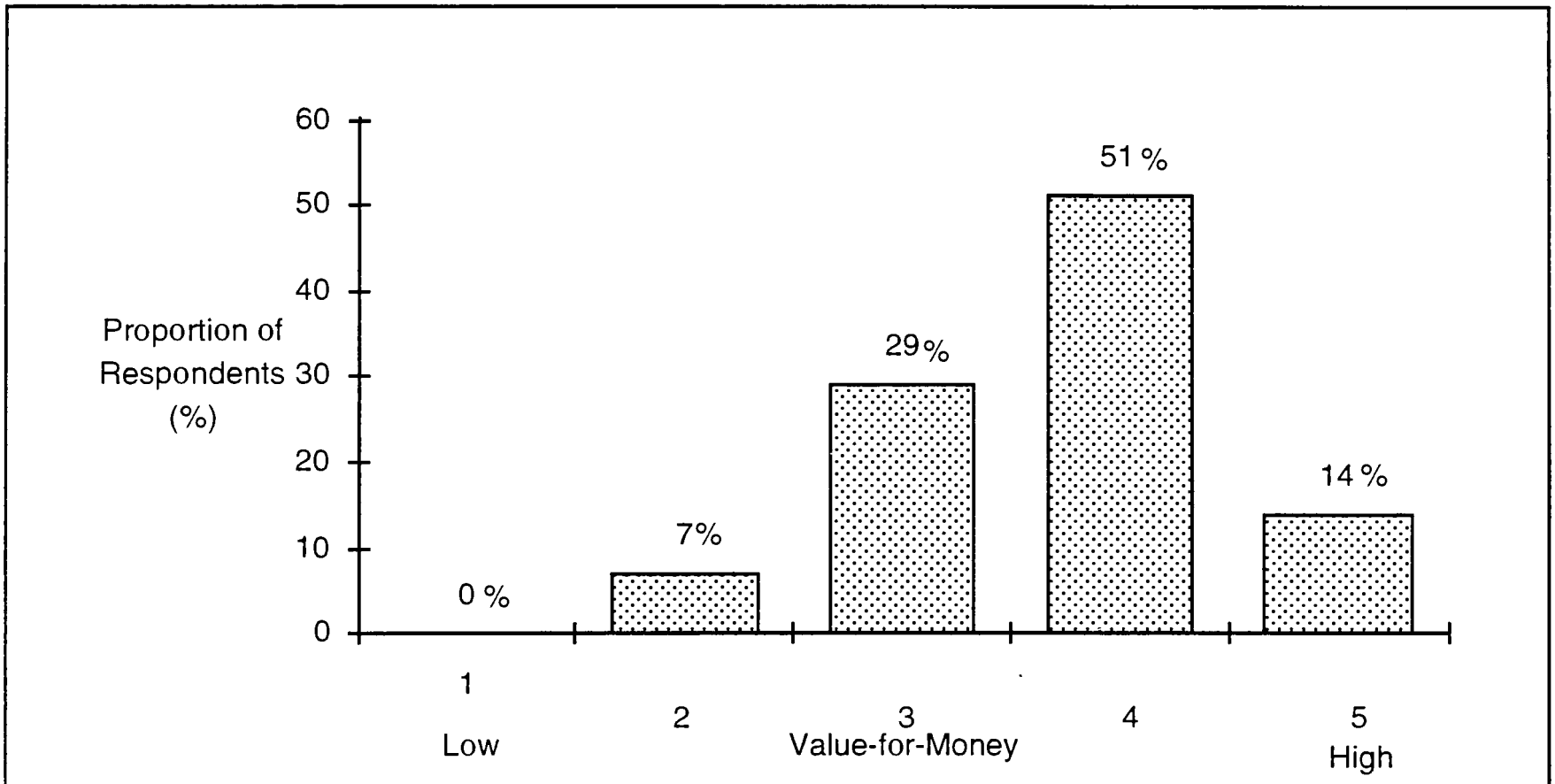
Exhibit V-6

**Value-for-Money Ratings —
Systems Software Support Contracts**



Sample of 90 European users

Source: INPUT

Although the average value-for-money ratings are very similar across all three countries, it is interesting to note how the distribution of responses varies between countries. Exhibit V-7 shows the distribution of responses on the question of value-for-money for equipment maintenance. It is notable that in both France and Germany very few respondents indicated very low value-for-money (8% and 6% respectively recorded ratings of 1 and 2). However, 20% of UK respondents recorded ratings of 1 and 2.

Of the three countries surveyed, it would appear that the UK has a significant number of users who do not believe that their equipment service contracts represent value-for-money.

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Exhibit V-7

Value-for-Money from Equipment Maintenance Contracts — Country Comparison

Country	User Rating (1 = Low 5 = High)						
	0	1	2	3	4	5	Average Rating
France	6	–	2	8	7	7	3.8
Germany	–	1	1	13	7	8	3.7
UK	1	3	3	5	7	11	3.7
Total	7	4	6	26	21	26	3.7

Sample of 90 European users. Standard error = 0.1. 0 = No response. *Source: INPUT*

E

Users Rate Hewlett-Packard, Novell and Sun as Leading Client/Server Service Providers

Equipment vendors, independent maintenance organisations (IMOs) and independent software vendors (ISVs) are all competing for service business in the client/server marketplace. The survey asked users to indicate the level of client/server service capability they attribute to a number of the leading suppliers in each of these categories. The lists of suppliers varied between countries (UK, France and Germany) but consisted of:

- The top five customer services suppliers (according to INPUT's 1993 rankings by revenue)
- The leading three IMOs
- Two leading ISVs, Oracle and Novell
- A leading workstation supplier (Sun) and a leading PC supplier (Compaq).

Exhibit V-8 shows the ratings of the suppliers which appeared on all three country lists and reveals that:

- Hewlett-Packard heads the list, as the supplier considered to have the highest level of client/server service capability

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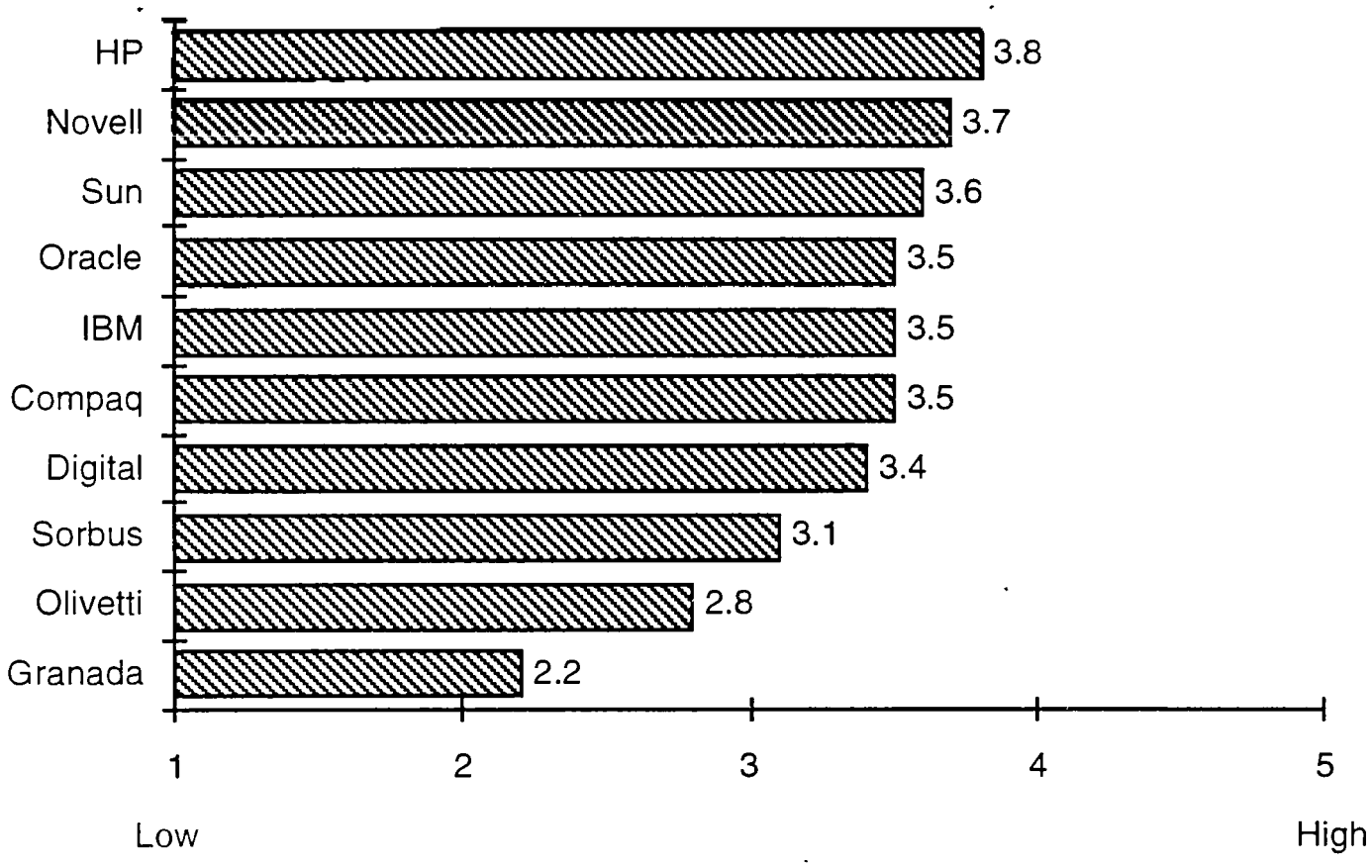
- Novell is ranked second in all three countries
- Sun Microsystems is consistently highly rated, taking third place in two of the three countries
- No one type of supplier dominates the list, though the larger equipment vendors and ISVs generally appear towards the top of the list
- The top seven suppliers are rated reasonably close together (scores vary from 3.8 down to 3.4)
- In all three countries, the leading national IT vendors (Bull in France, Siemens-Nixdorf in Germany and ICL in the UK) are not considered to have especially high levels of client/server service capability
- The IMOs are considered to have the lowest levels of client/server service capability.

Exhibits V-9 to V-11 show the results from the UK, France and Germany respectively.

Exhibit V-8

User Ratings of Service Supplier Capability — Europe



Sample of 90 European users (Standard error = 0.2)

Source: INPUT

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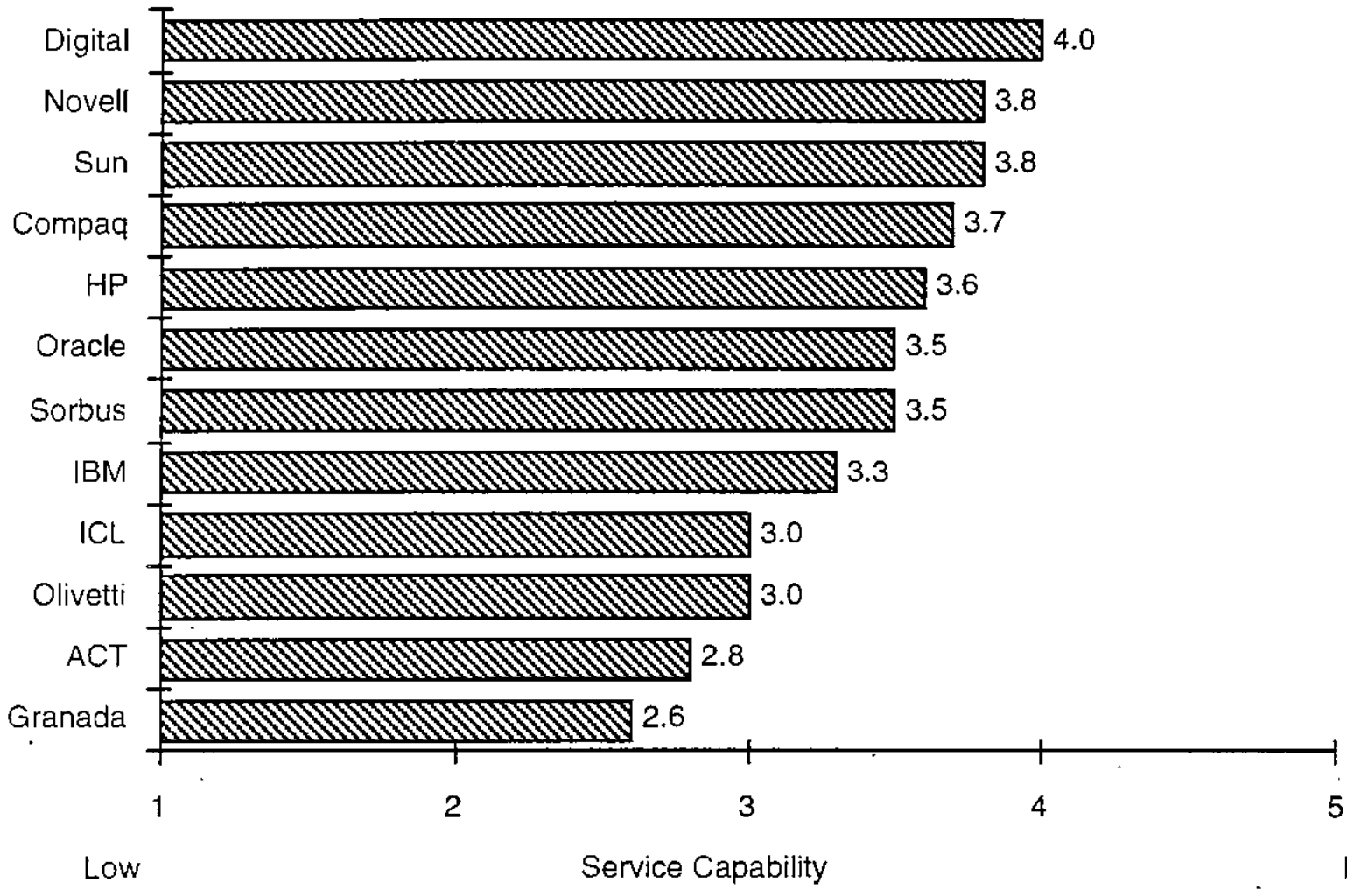
Exhibit V-9

User Ratings of Service Supplier Capability — UK



Sample of 30 users (Standard error = 0.2) *Source: INPUT*

In the UK:

- Digital is considered to have the highest level of client/server service capability
- Novell and Sun share second place
- Sorbus, 51% owned by ICL, is the highest-ranked independent service company in any of the three countries.

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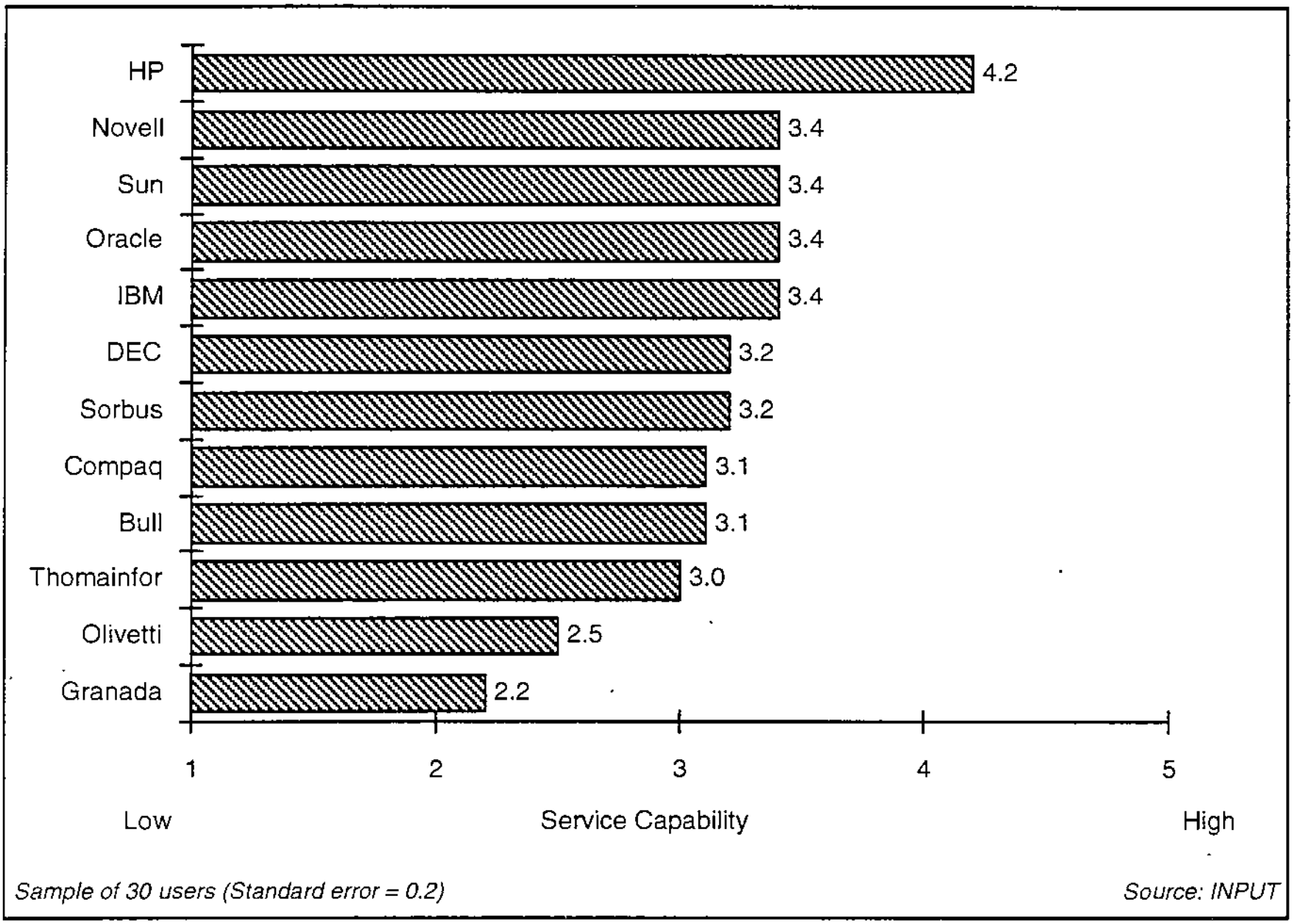
Exhibit V-10

User Ratings of Service Supplier Capability — France



Sample of 30 users (Standard error = 0.2) *Source: INPUT*

In France, Hewlett-Packard is the top-rated supplier by a big margin (H-P were not especially favoured in the French sample).

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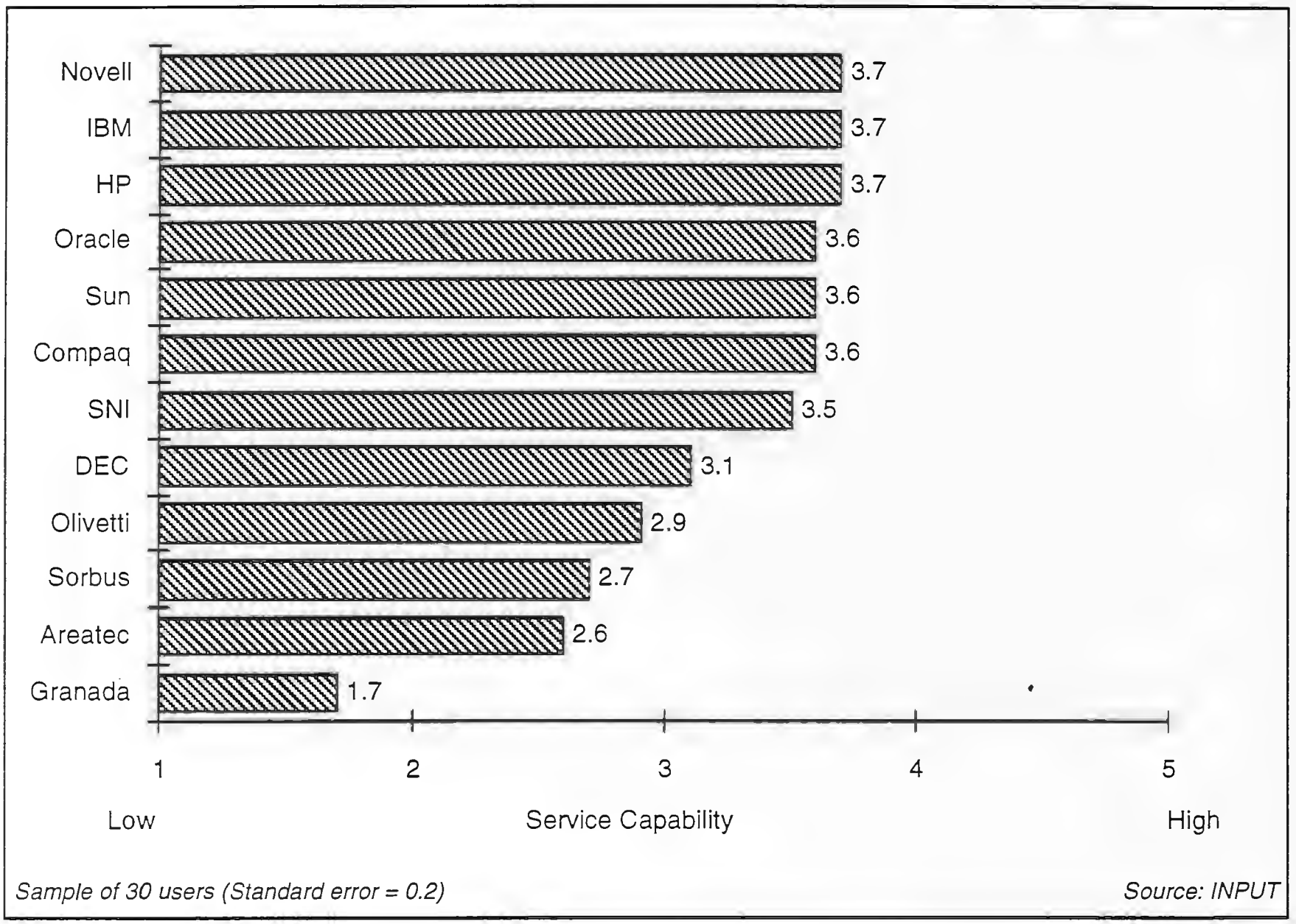
Exhibit V-11

User Ratings of Service Supplier Capability — Germany



Sample of 30 users (Standard error = 0.2) *Source: INPUT*

In Germany:

- H-P shares the top position with IBM and Novell
- The top seven suppliers are very closely grouped (only 0.2 points separating them). Siemens-Nixdorf, though ranked 7th, is only 0.2 points behind the top-rated supplier.

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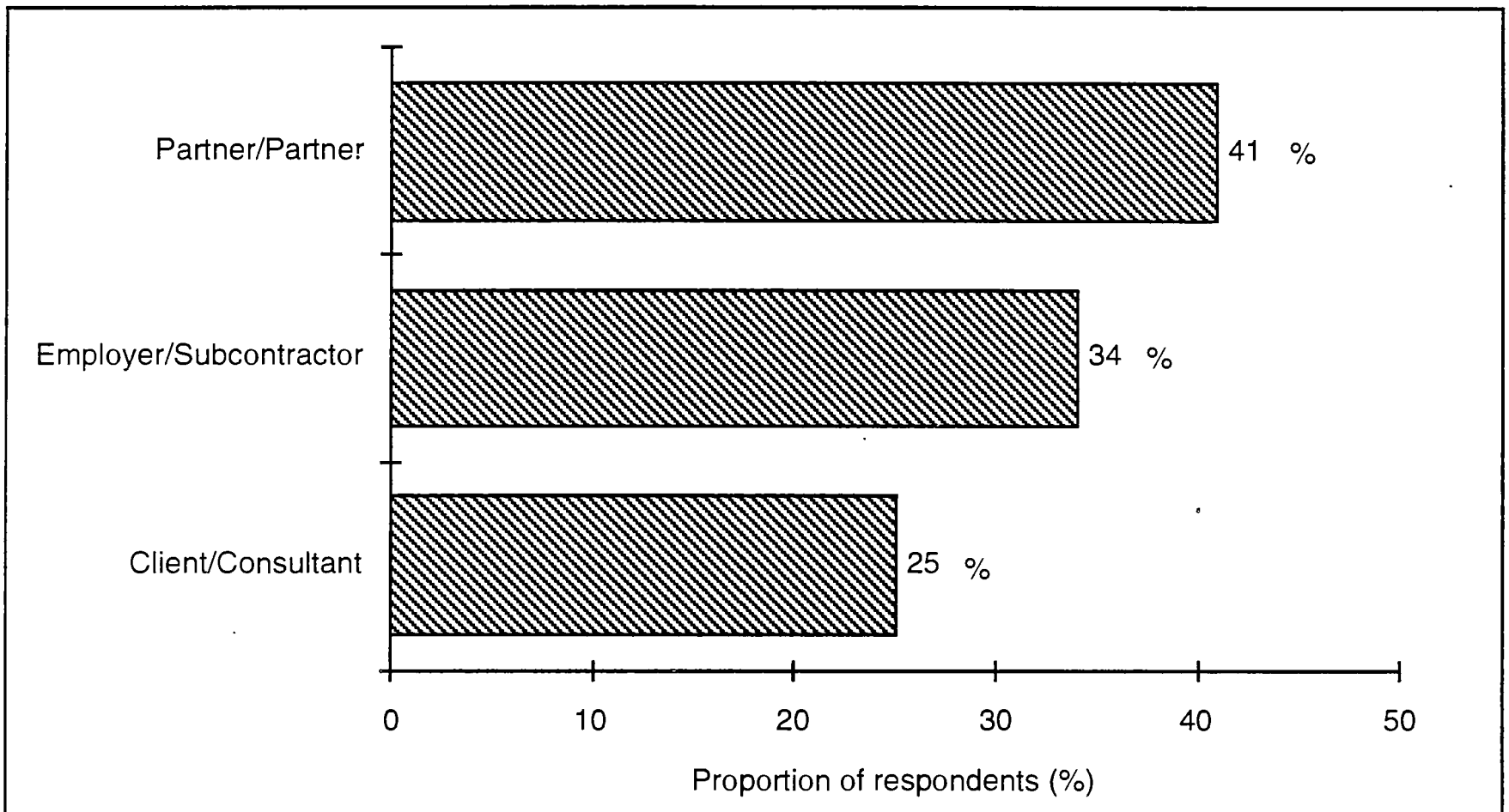
F
Users Consider Client/Server Service Providers to be Partners

Respondents in all three countries were asked to describe the nature of the relationship between themselves and their client/server service suppliers. See Exhibit V-12.

Exhibit V-12

Client/Server Service Relationships–User View



Sample of 90 European users *Source: INPUT*

Just over a third of respondents considered the relationship to be one of employer to subcontractor; i.e. where the organisation simply employs the service company to perform a set of defined tasks.

However, two-thirds of the respondents indicated that the relationship was on a more professional level. A quarter of respondents considered their service suppliers to be acting in the role of consultants, whilst over 40% considered the relationship with their service supplier to be an equal partnership.

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This reflects the development of a new attitude towards service suppliers. The complexity of most client/server computing environments is such that most user IS functions are incapable of supporting the entire infrastructure single-handedly. Not only do organisations require assistance with basic services such as maintenance, but they are actively seeking to establish partnerships with acknowledged experts in the support of client/server systems.

The indications are that, as yet, there are few service suppliers who can justifiably claim to be client/server specialists with a sufficiently good track record to prove it. However, the opportunities for those suppliers who can build such a reputation are great.

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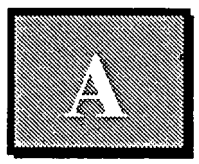

User Questionnaire

Q1 Firstly, I would like to ask what your role is in connection with your organisation's IT systems. *(circle one)*

1) IT Manager (Directly responsible for managing IT systems on a day-to-day basis)

2) Business Manager (Overall management responsibility for the business unit/function supported by IT systems)

3) Other (please define)

Q2 Has your organisation implemented any major corporate or departmental systems based on client/server technology in the last two years?

Yes *Proceed*

No *Terminate interview*

1 Client/Server Infrastructure

Q3 (a) What applications are supported by these systems? *(list)*

Q3 (b) And what **client/server equipment** do you use? (*up to 3 different*)

	Server platform & make (Note A)	Server type (Note B)	No. of clients	Client make/model (Note C)
1				
2				
3				

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Notes:

A *E.g. Platform* = PC, workstation, mainframe, midrange; *Make* = IBM, DEC, etc.

B *E.g.* File server, Database server, Specific business application, General purpose

C *E.g.* Compaq 486s, Dell Pentiums...etc.

Q3 (c) What server operating system(s) do you use?

UNIX
DOS/Windows
Windows NT
Other

Q3 (d) Are the system(s)...

Specific to a department
Enterprise-wide

Q3 (e) What systems were you operating prior to implementing client/server?

Mainframe datacentre
Midrange datacentre
Local PCs and workstations

Q3 (f) And what has been the impact on those IT systems?

Old systems still running independently

Old systems being integrated into client/server infrastructure

Old systems phased out/being phased out

Q3 (g) Who in your organisation decided the following:

Technical infrastructure of your client/server system?

Central IS
Local IS
User management

The application products to be used?

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Central IS
Local IS
User management

2
Support Arrangements for Client/Server Systems (General)

Q4 What was your principal motivation for adopting client/server technology?

Changing structure of your organisation - to better meet the needs of the new structure

Technology reasons such as faster response time

Business reasons such as getting closer to your customers

Cost reduction

Other (*please specify*)

Q5 (a) What **were** the major **support issues** which influenced your company's decision to adopt client/server technology?

Q5 (b) And with hindsight, what do you **now** consider to be the major support issues related to client/server technology?

Q6 (a) Would you say your overall support need after the implementation of client/server systems is:

Less
The same
Greater

...than before?

Explain

Q6 (b) How important are the following aspects of support for your client/server systems and your old (*legacy*) systems? (1 to 5 scale where 1 = unimportant, 5 = very important)

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	Legacy	Client/server
Equipment maintenance		
Systems software support		
Applications support		
Help desk services		
Network management & monitoring		
Asset management		
Version control		
Disaster recovery		

Q7 (a) Which of the following most closely applies to your situation?

	Before client/server	After client/server
1	One service supplier	One service supplier
2	One service supplier	Multiple service suppliers
3	Multiple service suppliers	One service supplier
4	Multiple service suppliers	Multiple service suppliers

Q7 (b) Who is/are your main service supplier(s) for the following?

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	Supplier Type
Planning and design	
Installation	
Equipment maintenance	
Systems software support	
Applications support	
Help desk services	
Network management & monitoring	

Interviewer Note: Please prompt interviewee for the following and use the codes below:

E	Equipment Vendor	D	Dealer/distributor
I	Independent maintenance organisation	S	Software and services firm
C	In-house/central IS team	L	In-house/local IS team

Q7 (c) Do you have a **multivendor service contract** with one of the above suppliers? *(i.e. where the supplier supports a variety of equipment and software from different vendors)*

Yes No

Q7 (d) How likely are you to take out a multivendor service contract with a single supplier? (1 to 5 scale, where 1 = very unlikely, 5 = very likely)

Explain

Q7 (e) How suitable are the following as suppliers of client/server **support**? Please rate on scale of 1 to 5 (where 1 = unsuitable, 5 = very suitable)

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1	Major equipment vendor (e.g. IBM, DEC, SNI, etc)	
2	Leading PC manufacturer (e.g. Compaq, Dell etc)	
3	Dealer/distributor	
4	Network equipment vendor	
5	Independent maintenance organisation	
6	Independent software company	
7	Your own central IS department	
8	Your own local IS group	

Q7 (f) What level of client/server service capability do you believe each of the following vendors possesses ? (1 to 5 rating, where 1 = very low, 5 = very high)

UK		France		Germany	
Digital		Digital		Digital	
Granada		Granada		Granada	
Oracle		Oracle		Oracle	
Sun		Sun		Sun	
ACT		Thomainfor		Areatec	
Novell		Novell		Novell	
Sorbus		Sorbus		Sorbus	
Olivetti		Olivetti		Olivetti	
IBM		IBM		IBM	
Hewlett-Packard		Hewlett-Packard		Hewlett-Packard	
Compaq		Compaq		Compaq	
ICL		Bull		SNI	

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Q7 (g) Which of the following best describes the relationship between you and your principal service supplier?

Employer to subcontractor
Partner to partner
Client to Consultant

Q8 How important do you consider the following aspects of client/server support and how satisfied are you with them? (1 to 5 scale)

	Importance	Satisfaction
Access to expert in person		
Access to expert by phone		
Remote diagnostics		
Help desk service		
On-site server maintenance		
On-site PC/workstation maintenance		

Q9 What **percentage of the total cost** of operating your client/server systems do you attribute to the following?

	%
Equipment costs	
Software costs	
Internal staff costs	
Internal support costs	
External staff & services	
Other (please specify)	

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3
Support Arrangements for Server Equipment

Q10 Which of the following most closely matches your **hardware maintenance** arrangements?

	Servers	PCs/Workstations
1	Same maintenance contract for both	
2	Different maintenance contracts	
3	Maintenance contract	No maintenance contract
4	Under warranty-No maintenance contract	

Q11 If you **do not** have a maintenance contract for your server equipment, but have a warranty agreement, is the agreement: (*tick in appropriate box*)

	On-site	Carry-in
1 year		
2 years		
3 years		
More		

Q12 Which of the following most closely matches your **systems software support** arrangements?

	Servers	PCs/Workstations
1	Same support contract for both	
2	Different support contracts	
3	Support contract	No support contract
4	Under warranty-No support contract	

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Q13 Please rate the following aspects of your current **server** support arrangements, both in terms of **importance** and **satisfaction** (1 to 5 scale):

	Importance	Satisfaction
Systems availability		
Hardware engineer skills		
Software engineer skills		
Problem escalation		
Remote diagnostics		
Guaranteed response time		
Guaranteed restore time		
Guaranteed up time		

Q14 On a scale of 1 (low) to 5 (high) to what extent would you consider that you are getting value-for-money for your server maintenance contract?

Q15 On a scale of 1 (low) to 5 (high) to what extent would you consider that you are getting value-for-money for your server software support contract?

Thank you

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