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MTM

Letter of Transmittal

Dear IHPS Client

Enclosed is IHPS's 1993 report on Miscellaneous Industry Markets 1993-1998. This forecast update covers the agricultural industry and construction industry, which are contained in IHPS's Miscellaneous sets.

This report discusses both industries, analyzing trends, issues and technology developments, as well as providing complete forecast updates for these industries, and each of eight IHPS delivery modes within the industries, for the forecast period 1993-1998.

Sincerely,

RLC

May 21, 1993

Dear Colleague:

Enclosed is INPUT's 1993 report, *Miscellaneous Industry Markets, 1993-1998*. This forecast update covers the agricultural industry and construction industry, which are contained in INPUT's miscellaneous sector.

This report discusses both industries—analyzing trends, issues, and technology developments—as well as providing a complete forecast update for these industries and each of eight INPUT delivery modes within the industries for the forecast period 1993-1998.

Sincerely,

Bob

Robert L. Goodwin
Manager
Information Services Market Analysis Program

Enc.

VERTICAL MARKET ANALYSIS

MISCELLANEOUS INDUSTRIES

1993-1998

U.S. Information Services
Market Analysis Program

MAY 1993

MISCELLANEOUS INDUSTRIES

INFORMATION SERVICES OPPORTUNITIES & TRENDS

1993-1998 FORECAST UPDATE

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Information Services Market Analysis Program
(MAP)

Miscellaneous Industries

Information Services Opportunities & Trends 1993-1998 Forecast Update

Table of Contents

Exhibits

Introduction

A
Purpose

This report provides the 1993 INPUT forecasts for the miscellaneous industries sector, which encompasses the agriculture and construction vertical markets.

- A discussion of recent market issues, trends and technological factors that are influencing this sector is included.

- In particular, the use of client/server technology and workstation solutions is examined as key technological factors that are important to the agriculture and construction markets.

This report concentrates on information services provided to those areas of the agricultural production and construction industries that are large enough to be of interest to information services vendors.

- Segments of the agricultural production industry that are analyzed further are those identified by the two-digit SIC classifications 01 and 02.

- Also included within the agricultural production classification are the forestry and fishing industries. However, the expenditures are not sufficiently large enough to warrant further analysis of these industries within this report.

- The agricultural services industry, identified under SIC code number 07, includes such subcategories as soil preparation services, crop services, veterinary services and farm labor management services. The size of the information services expenditures for the agricultural services markets is also not large enough to warrant further analysis.

The agricultural producers that are analyzed include establishments classified with the SIC 01 designation—primarily engaged in the production of crops, plants, vines and trees (excluding forestry operations)—as well as establishments classified with the SIC designation 02. These establishments include farms, ranches, dairies, feedlots, egg production facilities, broiler facilities, poultry hatcheries and apiaries, which are primarily engaged in the keeping, grazing or feeding of livestock for the sale of livestock or livestock products. Livestock, as used here, includes cattle, hogs, sheep, goats and poultry of all kinds.

The segments of the construction industry analyzed include three broad types of construction activity:

1) Building construction by general contractors or by operative builders

2) Heavy construction other than building by general contractors and special trade contractors

3) Construction activity by other special trade contractors.

- Special trade contractors are primarily engaged in specialized construction activities—such as plumbing, painting, and electrical work—and work for general contractors under subcontract or directly for property owners. General contractors usually assume responsibility for an entire construction project, but may subcontract to others all of the actual construction work or those portions of the project that require special skills or equipment. General contractors thus may or may not have construction workers on their payroll.

- The specific construction groups that will be analyzed include SIC 15—Building Construction—General Contractors and Operative Builders; SIC 16 - Heavy Construction other than Building Construction Contractors; and SIC 17—Construction—Special Trade Contractors.

The analysis of the information services industry in this report covers all three of the above-noted industry segments.

B
Organization

This section, Chapter I, Introduction, describes the purpose and organization of the report. The remainder of this report is organized as follows:

Chapter II, Trends, Events and Issues, reviews the business issues and technological factors that are influencing the use of information services in the agricultural production and construction markets.

Chapter III, Information Services Market, analyzes the use of information services in total, and by service mode, for the Miscellaneous Sector.

Appendix A, which contains the forecast data base, presents a detailed forecast for the Miscellaneous Sector by information services delivery mode and selected submode, together with a reconciliation to the 1992 forecast.

Appendix B is an index of companies mentioned in the report.

C
Related Reports

Reports related to this Miscellaneous Industries sector report include:

- Discrete Manufacturing Sector
- Business Services Sector
- Retail Distribution Sector

These reports are all part of INPUT's MAP program, which provides a set of industry and cross-industry reports to describe the information services industry.

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Trends, Events and Issues

A
Overview

This chapter discusses the factors that will have an impact on the markets for information services in the agricultural production and construction industries during the period 1993 to 1998.

The trends, events and issues that are and will be affecting this sector have to be examined from the perspective of each of its components—the agricultural production and construction markets.

- Both of these markets seem to be in better shape in 1993 than they have been in the last two years. Both markets, however, still have areas of uncertainty that are affecting current planning.

- Interest in using computing technology to manage and plan more effectively is also rising in both markets, despite a reluctance to invest in supplies and equipment.

B
Agricultural Industry Analysis

Conditions are very favorable for the agricultural market, in general, at this time.

- There should be record harvests and income in 1993. According to *Business Week*, cash income for farmers should approach the record level of 1990, which was $61.3 billion.

- Although food prices may not climb in view of low inflation, crop-support payments should drive government subsidies up by almost 40% to $12 billion.

- Farm exports should be up to almost $44 billion, unless a trade war erupts with Europe.

- Mexican purchases of meat, oilseed and grain will drive its agricultural purchases up to about $4.1 billion in 1993. Ratification of NAFTA (North American Free Trade Agreement) could push purchases by Mexico even higher.

There are continuing problem areas that could have a negative impact on agriculture during the next few years, however:

- The number of dairy farms is still in excess of what the market will support and further shrinkage will occur.

- Cotton production is falling due to the reduction of acreage devoted to this crop.

- Federal government policy and international treaties could have significant impacts on overseas business. In particular, grain sales to Russia and China could suffer from political decsions or lack of financing agreements.

- Marked changes in weather patterns have also been a concern in the agricultural market.

The impact of the foregoing events and trends will cause farmers and others involved in agricultural production to maintain a cautious attitude toward costs and increase their interest in careful planning.

- Expenditures for equipment and supplies have continued to suffer as a result of this attitude.

- Interest in the use of information technology to aid in record keeping and planning has risen, however.

C
Construction Industry Analysis

Although the number of companies in the construction industry has declined during the past few years due to the recession, there is hope that the volume of construction work will increase sufficiently during the next few years to reverse the trend.

- The tendency in the construction industry has been for the number of firms to decrease during downturns and increase during recoveries. The number of firms remain approximately the same over a decade.

- There has been a limited resurgence in some areas of the construction market during the last year, particularly in remodeling existing structures, but this has not been sufficient to encourage the formation of new firms or increase the size of present firms to any meaningful extent.

- The plans of the Clinton administration for economic stimulus legislation could help the construction market to recover further.

There are marketplace factors that could inhibit recovery of the construction industry, however.

- Many buildings and facilities that were built in the late 1980s are not fully utilized, and this inhibits further construction in a number of industries.

- The slow sales of new residential real estate have continued to be a negative factor, although sales in the first quarter of 1993 showed some promise.

D
Business Issues

There are some common issues in both segments of the miscellaneous industries sector that have an impact on the use of information services. As described in the foregoing sections, both agricultural production and construction are depressed by the recent recession and conscious of the need to control costs and increase planning.

- Both segments are reluctant to invest in new equipment and supplies until the recovery has reached higher levels.

- However, both segments are looking for improvements in the use of information technology that can aid in cost control and planning.

These segments also share other common issues. They are both very concerned about and reliant upon government programs and activities.

- Agricultural producers expect government price supports to provide a good revenue base this year and hope that government credits to foreign nations will add to their opportunities.

- Construction firms hope that a general government economic stimulus package will generate increased construction revenues.

Both segments of the miscellaneous industries sector have also responded positively to expanding workstation/PC capabilities.

- A number of construction firms have converted from minicomputer to workstation/PC-based turnkey systems. For example, Turner Construction is moving from mainframes to client/server technology.

- Many agricultural producers have started to use computing or moved from remote or batch processors to workstations or personal computers as a result of the improved cost/performance ratio of this equipment.

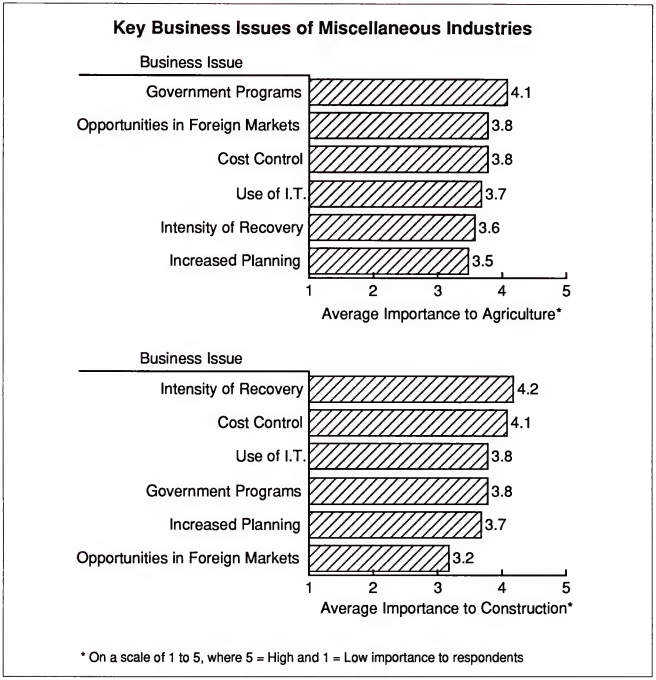
An issue in which there is more difference between the interests of agriculture and construction companies is a concern about the intensity of the recovery.

- Construction firms feel that a high level of recovery could reduce unused space and generate a period of real growth for the industry, which would stimulate the use of information services.

- Although agricultural producers are hopeful that a recovery will add to consumption of their products, they do not give the same importance to a high level of recovery.

An assessment of the relative impact that business issues will have on both segments of the miscellaneous industries market is depicted in Exhibit II-1.

EXHIBIT II-1



E

Impact of Technology

Although there are differences in the use of information technology between the two segments of the miscellaneous industries sector, both segments have been recognized as markets for turnkey systems and electronic information services (EIS or on-line data bases).

- Agricultural producers rely heavily on the use of EIS for equipment, crop, warehouse, shipping, commodity pricing and other data. Cross-industry vendors such as Reuters and Dow Jones are also used, as well as specialists such as Agridata Resources and Doane. Other network services, particularly EDI, are also supplied by vendors.

- Agricultural producers are also heavy users of turnkey systems based on personal computer platforms chiefly supplied by firms specializing in agriculture, such as Farm Management and Harvest Computer Systems. They are used for accounting, payroll, livestock and crop record-keeping, supplies, reporting and management functions. Applications software products sold separately from turnkey systems are increasing in use.

- The construction industry is also a user of EIS, although much less of the information systems budget is spent on this service than is the case in agriculture. Vendors such as R.S. Means and Marshall & Swift, which specialize in EIS for this industry, supply data on building material and other costs.

- Turnkey systems—such as those supplied by Profitool—which address accounting, job costing, project management and scheduling have been popular in construction. However, leading vendors in the industry—such as Concord, Bidtek and Timberline—have turned more toward the sale of applications products that are independent of the sale of computers

Both segments of the miscellaneous industries sector have been stimulated by developments in workstation/PC technology, as noted in the last section, but construction firms have been much more interested in developments in information technology in general.

- Construction firms are using graphical interface tools, such as those from Softouch, to aid in estimating and managing the cost of projects.

- Image management application systems have been provided by Combustion Engineering and a subsidiary of Lockheed.

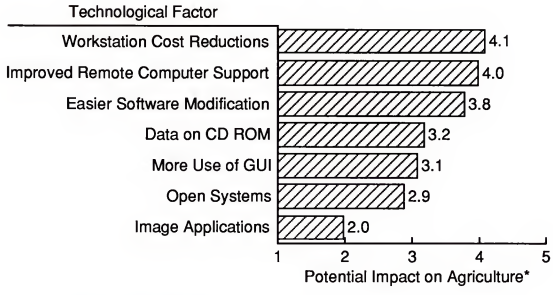
- Turner Construction has implemented a large client/server system.

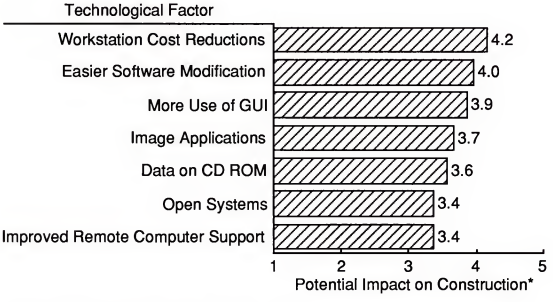
- A group of vendors that serve the construction industry, including Bidtek and Concord, have been developing open systems software products. To a lesser extent, some software product companies that serve the agricultural market have been developing open system products as well.

The developments in information technology that will have the most significant impact on the agricultural and construction markets, according to respondents, are ranked by importance in Exhibit II-2.

EXHIBIT II-2

Impact of Technological Factors on Miscellaneous Industries





* On a scale of 1 to 5, where 5 = High and 1 = Low importance to respondents

Exhibit II-2 illustrates that both segments show interest in technology that can help users gain more independence through use of local capabilities.

- Agricultural producers are interested in expanding their use of computers as workstation costs decrease. They also are interested in support capabilities from vendors that can supply aid from a distance, and software products that can be modified at their site.

- The interest in CD ROM to meet some information needs also illustrates the desire of agricultural producers to gain more local control.

- Construction firms are interested in expanded workstation capabilities and CD ROM for similar reasons. Another factor that construction firms view as important in achieving independence from vendors is the use of open systems.

- Construction firms are interested in features and capabilities that serve local needs, but are also sensitive to the specific needs of the construction business, such as the use of GUIs and imaging.

III

Information Services Market

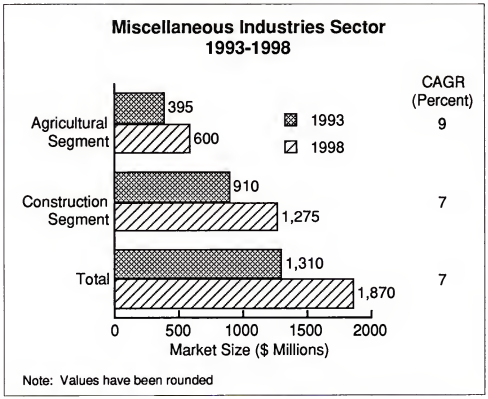
A
Overview

1. Overall Information Services Market

The size and growth of the Miscellaneous Industries market and its two components are depicted in Exhibit III-1.

- The construction segment accounts for about two-thirds of the total market.
- The overall market and both segments are growing more slowly than the total information systems market, which had a CAGR of 12% in 1992.

EXHIBIT III-1



2. Agricultural Production

Total information services expenditures for agricultural users in 1992 was approximately $365 million. 1993 revenues are forecast to be $395 million.

- A large portion of the "potential" information services work in the agricultural production market is accomplished by internal groups. There could be an expansion of the market if producers begin to utilize outside vendors to a greater extent.

- INPUT estimates that information services spending by the 100 largest agricultural producers represents approximately two-thirds of total agricultural producer expenditures. These larger producers tend to utilize cross-industry accounting software products rather than vertical application products. (Only vertical product expenditures are aggregated in exhibits analyzing this industry.)

- More attractive vertical products could result in further penetration of the agriculture market by industry oriented vendors.

On the basis of the present trends in the agricultural segment, growth over the 1993-1998 period is projected at 9%, resulting in a $600 million market in 1998, as shown in Exhibit III-1. There is a potential for increased business as discussed above, however.

3. Construction Industry

Total user expenditures for information services in 1992 was estimated to be $851 million. 1993 revenues are forecast to be $910 million.

- Many midsized to large construction companies devote much of their external expenditures to cross-industry software products, as was the case with agriculture.

- A greater percentage of the information systems budget is devoted to outside expenditures (about 60%) for medium- to large-sized construction firms than is the case for larger agricultural firms.

Because growth for the U.S. construction industry looks poor in the near term, growth in information services to this industry is projected to expand at a CAGR of only 7% between 1993 and 1998. However, it is estimated that only 40-45% of U.S. builders have automated their construction functions, a relatively low level of use of information systems. There is opportunity for expansion of services.

B

Delivery Mode Analysis

1. Processing Services

Exhibits III-2 and III-3 show the size and growth rates of the processing services delivery mode within the agricultural production and construction market segments. As can be seen, both segments are reporting a slow decline in the demand for processing serrvices.

EXHIBIT III-2

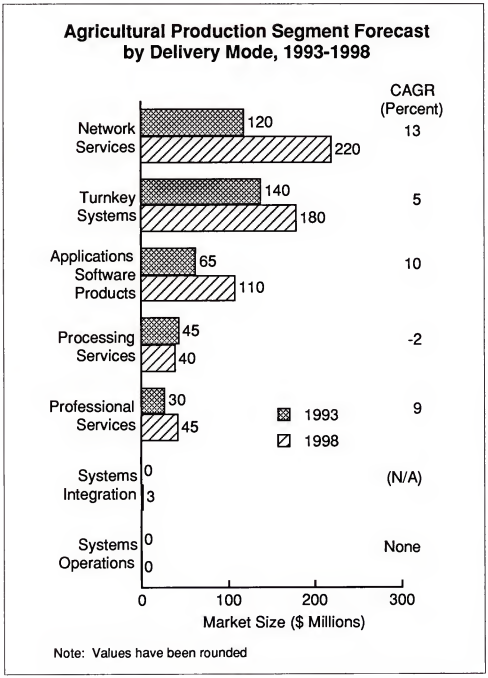
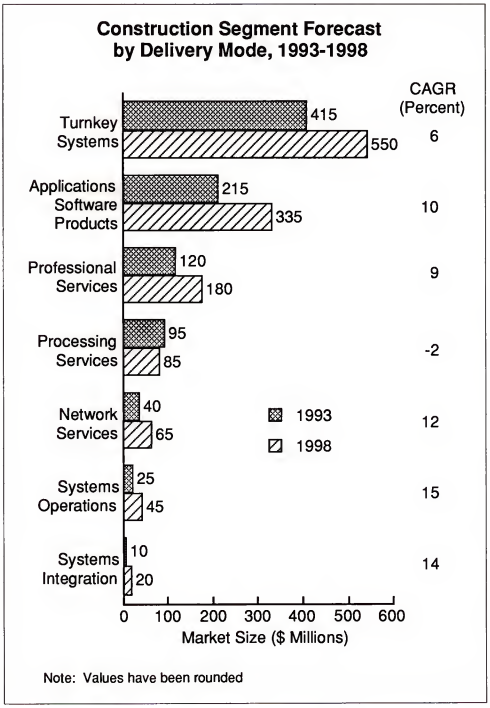


EXHIBIT III-3



In the agricultural production market, remote processing is primarily done for payroll and accounting services for small and midsized farms.

- These types of services are provided by traditional payroll processing companies, banks and accountants.

- This market is shrinking as the rate of personal computer installations on farms expands.

The estimated size of the remote processing services market for agricultural producers in 1993 will be about $45 million, and it will shrink to $40 million by 1998.

In the construction industry, processing services have been used for industry-specific applications, such as project management and scheduling, as well as accounting and payroll.

- Processing services expenditures have been over twice as large in the construction industry as in the agriculture industry and will amount to about $95 million in 1993.

- However, construction industry-specific applications systems, as well as payroll and accounting services, have been moving in-house as the cost of entry-level computer systems decreases.

The market for processing services in the construction industry is projected to decline at 2%, the same rate as in agriculture production, over the next five years. It is estimated that the market will amount to $85 million in 1998.

2. Network Services

Network services are much more important to the agricultural segment of miscellaneous industries.

- User expenditures for network services for agriculture in 1993 are estimated to be $120 million, as shown in Exhibit III-2.

- This delivery mode addresses a broad range of farm operations with needs for an expanding number and variety of data bases and other types of network applications, including electronic mail and EDI.

Growth of this delivery mode in agriculture, however, is projected to expand at a 13% CAGR, reflecting a slightly slower growth rate forecast for agricultural production than for the total U.S. market. This is partially due to the slower growth rate in agricultural production than in the total U.S. economy.

In the construction industry, the principal network service is the on-line data base market for construction cost data.

- A small number of vendors offer such services. The largest is R.S. Means, with an estimated two-thirds of the total market.

- These vendors also market software products with their services, such as estimating systems that can utilize the current data base information. Other vendors also provided linkages to these data bases for estimating software applications.

Another important network service for the construction industry is EDI (electronic data interchange), which provides on-line structured document delivery among suppliers, vendors and customers. An industry group for EDI has been established.

The network services market in construction is estimated to be $40 million in 1993. It is projected to expand at a 12% CAGR over the next five years and increase to $65 million in 1998, as shown in Exhibit III-3. The rate could accelerate as EDI use expands.

3. Software Products

Almost 70% of software solutions sold to the agricultural production market in 1993 will be supplied as part of a turnkey system.

- Most producers have been interested in obtaining software products and low-cost PC solutions from a single vendor in order to assure themselves of support.

- The availability of low-cost equipment and a number of choices in software products have led agricultural producers to look for solutions that more nearly meet their needs.

As shown in Exhibit III-2, the unbundled software products (non-turnkey systems) portion of the agricultural producers' market in 1993 is estimated to be approximately $65 million. It is projected to grow at a CAGR of 10% over the next five years to $110 million. It is primarily PC-based.

There has been a history of use of applications software products in the construction industry since the early 1970s. In 1993, the market will amount to $215 million in user expenditures.

The use of software products in construction has been influenced by two factors during the last few years.

- There is a segmentation in the industry between the general contractor (commercial/public works, including highway construction and homebuilders) and subcontractor markets, and the needs of these groups are different. Some software products vendors supply only one of these segments.

- There has been a trend toward using PC- or workstation-based solutions rather than those based on minicomputers.

During the next five years, the construction-specific software products market will grow at CAGR of 10% and will grow to a level of $335 million of user expenditures in 1998, as shown in Exhibit III-3.

4. Professional Services

Much of the need for professional services in the agricultural production market, particularly custom development or modification of software products, has been provided by independent software products vendors and turnkey systems suppliers at a combined price, in many cases, with other services and products.

As a result, shown in Exhibit III-2, the market for professional services only amounted to $30 million in 1993. It is expected to grow at a CAGR of 9% and grow to $45 million in 1998 as agricultural producers look for more customized solutions.

There has been more demand for customized development in the construction market, but it has been curtailed by the recent economic situation, and user expenditures will amount to about $120 million in 1993, as shown in Exhibit III-3.

The beginning of a recovery and technological factors, such as the use of local-area networks (LANs), is encouraging more growth, and user expenditures should rise at a CAGR of 9% and reach $180 million in 1998.

5. Systems Integration

There is not much evidence of current use of systems integration solutions among agricultural producers, although some large ones are interested in distributed systems that could require this delivery mode. This could result in a small level of SI work by 1998, as shown in Exhibit III-2.

There is a higher level of use of SI in the construction segment, where there is a need for future systems that will utilize multiplatform/multivendor connectivity and the use of relational data base capability. This should lead to a growth of SI expenditures from $10 million in 1993 to $20 million in 1998, as shown in Exhibit III-3.

6. Turnkey Systems

Turnkey systems has been the major delivery mode utilized in the miscellaneous industries sector.

In the agricultural production market, current sales of turnkey systems are primarily through VARs that specialize in this market.

- Users that are moving work in-house from processing services vendors may be acquiring a turnkey product offered by one of these vendors that also acts as a value-added reseller (VAR).

- First-time users that want an economic solution and/or the support of a dealer are also attracted to turnkey vendors. These vendors may also appeal to users that want to upgrade their capabilities, although these users usually evaluate software and hardware products separately.

The estimated agricultural production turnkey systems market in 1993 will be $140 million, making it the largest delivery mode for the agricultural segment. It will grow at a CAGR of 5% and reach $180 million in 1998. At that time, it will be the second largest delivery mode, as shown in Exhibit III-2.

Turnkey systems are more dominant in the construction industry, accounting for about 46% of user expenditures for information services in 1993, when it will reach a total of $415 million, as shown in Exhibit III-3.

Turnkey systems vendors have been the source of information and technical assistance in regard to the use of new technologies such as imaging, networks and open systems. Turnkey systems vendors, such as Bidtek, have also been responsible for providing information on industry needs such as project management and bidding.

Turnkey systems' use will increase at construction firms at a CAGR of 6% and reach an estimated size of $550 million in user expenditures in 1998.

7. Systems Operations

There is very little interest in systems operations in the agricultural industry, possibly because turnkey and other vendors supply a high level of support to industry users.

There is a market for systems operations among midsized and larger construction firms that are seeking methods of obtaining the benefits of automation while limiting their investments in equipment and software products. The systems operations market in the construction market will grow from $25 million in 1993 to $45 million in 1998 at a CAGR of 15%, as shown in Exhibit III-3.

Forecast Data Base and Reconciliation

A

Market Structure and Forecast Data Base

Miscellaneous industries is defined as including the following segments:

- Agricultural production
- Construction

As part of an INPUT market redefinition, the agricultural and construction segments were each re-evaluated in 1990 to develop new constituent forecasts for the Miscellaneous Industries sector. Exhibit A-1 presents the consolidated forecast for the sector.

Exhibits A-2 and A-3 present the forecasts for the agricultural and construction segments that constitute the sector.

EXHIBIT A-1

Miscellaneous Sector
Market Size by Delivery Mode, 1992-1998

Delivery Modes	1992 ($M)	Growth 92-93 (%)	1993 ($M)	1994 ($M)	1995 ($M)	1996 ($M)	1997 ($M)	1998 ($M)	CAGR 93-98 (%)
Sector Total	1,216	7	1,307	1,406	1,513	1,615	1,743	1,871	7
Processing Services	140	-2	137	134	132	129	126	124	-2
- Trans-Processing	140	-2	137	134	132	129	126	124	-2
Turnkey Systems	521	6	555	592	631	656	695	730	6
Applications Software	257	9	280	306	334	365	405	446	10
- Mainframe	14	-7	13	12	11	11	10	9	-7
- Minicomputer	92	6	98	104	108	112	115	117	4
- Workstation/PC	151	12	169	190	215	242	280	320	14
Systems Operations	20	15	23	26	30	35	40	46	15
Systems Integration	8	13	9	10	12	14	16	19	16
Professional Services	132	10	145	157	170	185	200	220	9
Network Services	138	14	158	181	204	231	261	286	13
- Electronic Information	130	14	148	169	190	215	243	265	13
- Network Applications	8	25	10	12	14	16	18	21	16

EXHIBIT A-2

Agricultural Segment
Market Size Forecast by Delivery Mode, 1992-1998

Delivery Modes	1992 ($M)	Growth 92-93 (%)	1993 ($M)	1994 ($M)	1995 ($M)	1996 ($M)	1997 ($M)	1998 ($M)	CAGR 93-98 (%)
Sector Total	365	8	396	431	470	507	548	598	9
Processing Services	44	0	44	43	42	42	41	40	-2
- Trans-Processing	44	0	44	43	42	42	41	40	-2
Turnkey Systems	131	6	139	148	158	165	171	180	5
Applications Software	59	8	64	70	76	84	94	110	10
- Mainframe	-	-	-	-	-	-	-	-	-
- Minicomputer	2	-50	1	1	1	1	1	1	0
- Workstation/PC	57	11	63	69	75	83	43	109	12
Systems Operations	-	-	-	-	-	-	-	-	-
Systems Integration	-	-	0	1	2	2	2	3	-
Professional Services	26	8	28	30	33	35	39	43	9
Network Services	105	15	121	139	159	179	201	222	13
- Electronic Information	99	15	114	131	150	169	190	210	13
- Network Applications	6	17	7	8	9	10	11	12	12

EXHIBIT A-3

Construction Segment
Market Size Forecast by Delivery Mode, 1992-1998

Delivery Modes	1992 ($M)	Growth 92-93 (%)	1993 ($M)	1994 ($M)	1995 ($M)	1996 ($M)	1997 ($M)	1998 ($M)	CAGR 93-98 (%)
Sector Total	851	7	911	975	1,043	1,108	1,194	1,214	7
Processing Services	96	-3	93	91	90	87	85	84	-2
- Trans-Processing	96	-3	93	91	90	87	85	84	-2
Turnkey Systems	390	7	416	444	473	491	524	550	6
Applications Software	198	9	216	236	258	281	311	336	10
- Mainframe	14	-7	13	12	11	11	10	9	-7
- Minicomputer	90	8	97	103	107	111	114	116	4
- Workstation/PC	94	13	106	121	140	159	187	211	15
Systems Operations	20	15	23	26	30	35	40	46	15
Systems Integration	8	13	9	9	10	12	14	17	14
Professional Services	106	10	117	127	137	150	160	177	9
Network Services	33	12	37	42	45	52	60	64	12
- Electronic Information	31	10	34	38	40	46	53	55	10
- Network Applications	2	50	3	4	5	6	7	9	25

B
Forecast Reconciliation

Exhibit A-4 presents the forecast reconciliation for the Miscellaneous Industries sector.

There are only slight differences from the 1992 report:

- Somewhat faster growth in applications software products and professional services due to increasing interest in customized application solutions.
- Somewhat slower growth in network services as market use matures.
- Delayed use of systems integration due to the delay in economic recovery.

EXHIBIT A-4

Miscellaneous Sector
1993 MAP Data Base Reconciliation

Delivery Modes	1992 Market				1997 Market				92-97 CAGR per data 92 Rpt (%)	92-97 CAGR per data 93 Rpt (%)
	1992 Report (Fcst) ($M)	1993 Report (Actual) ($M)	Variance from 1992 Report ($M)	Variance from 1992 Report (%)	1992 Report (Fcst) ($M)	1993 Report (Fcst) ($M)	Variance from 1992 Report ($M)	Variance from 1992 Report (%)		
Total	1,216	1,216	0	0	1,740	1,743	3	0	7	7
Processing Services	139	140	1	1	128	126	-2	-2	-2	-2
Turnkey Systems	522	521	-1	0	696	695	-1	0	5	5
Applications Software	257	257	0	0	396	405	9	2	9	9
Systems Operations	20	20	0	0	40	40	0	0	15	15
Systems Integration	8	8	0	0	18	16	-2	-11	18	15
Professional Services	132	132	0	0	191	200	9	5	8	9
Network Services	138	138	0	0	271	261	-10	-4	13	13

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Index of Companies

Vendors and users of information services mentioned in this report include:

- Agridata Resources
- Bidtek
- Combustion Engineering
- Concord
- Doane
- Dow Jones
- Farm Management
- Harvest Computer
- Lockheed
- Marshall & Swift
- R.S. Mean
- Timberline
- Turner Construction Co.

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— *U.S.* —

- Outsourcing
- Client/Server
- Systems Integration
- IT Vendor Analysis
- EDI / Electronic Commerce
- U.S. Federal Government IT Procurements

— *European* —

- Outsourcing
- Systems Integration
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INPUT Worldwide

San Francisco—1280 Villa Street
Mountain View, CA 94041-1194
Tel. (415) 961-3300 Fax (415) 961-3966

New York—400 Frank W. Burr Blvd.
Teaneck, NJ 07666
Tel. (201) 801-0050 Fax (201) 801-0441

Washington, D.C.—1953 Gallows Rd., Ste. 560
Vienna, VA 22182
Tel. (703) 847-6870 Fax (703) 847-6872

London—17 Hill Street
London W1X 7FB, England
Tel. +71 493-9335 Fax +71 629-0179

Paris—24, avenue du Recteur Poincaré
75016 Paris, France
Tel. +1 46 47 65 65 Fax +1 46 47 69 50

Frankfurt—Sudetenstrasse 9
W-6306 Langgöns-Niederkleen, Germany
Tel. + 6447-7229 Fax +6447-7327

Tokyo—Saida Building, 4-6, Kanda Sakuma-cho
Chiyoda-ku, Tokyo 101, Japan
Tel. +3 3864-0531 Fax +3 3864-4114

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