

INTERNATIONAL FOOD & AGRIBUSINESS MANAGEMENT ASSOCIATION
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“Global Challenges and Local Solution”

“THE EMERGENCE OF HYBRID FORMS IN ARGENTINA’S GRAIN PRODUCTION SECTOR”

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FOOD & AGRIBUSINESS PROGRAM

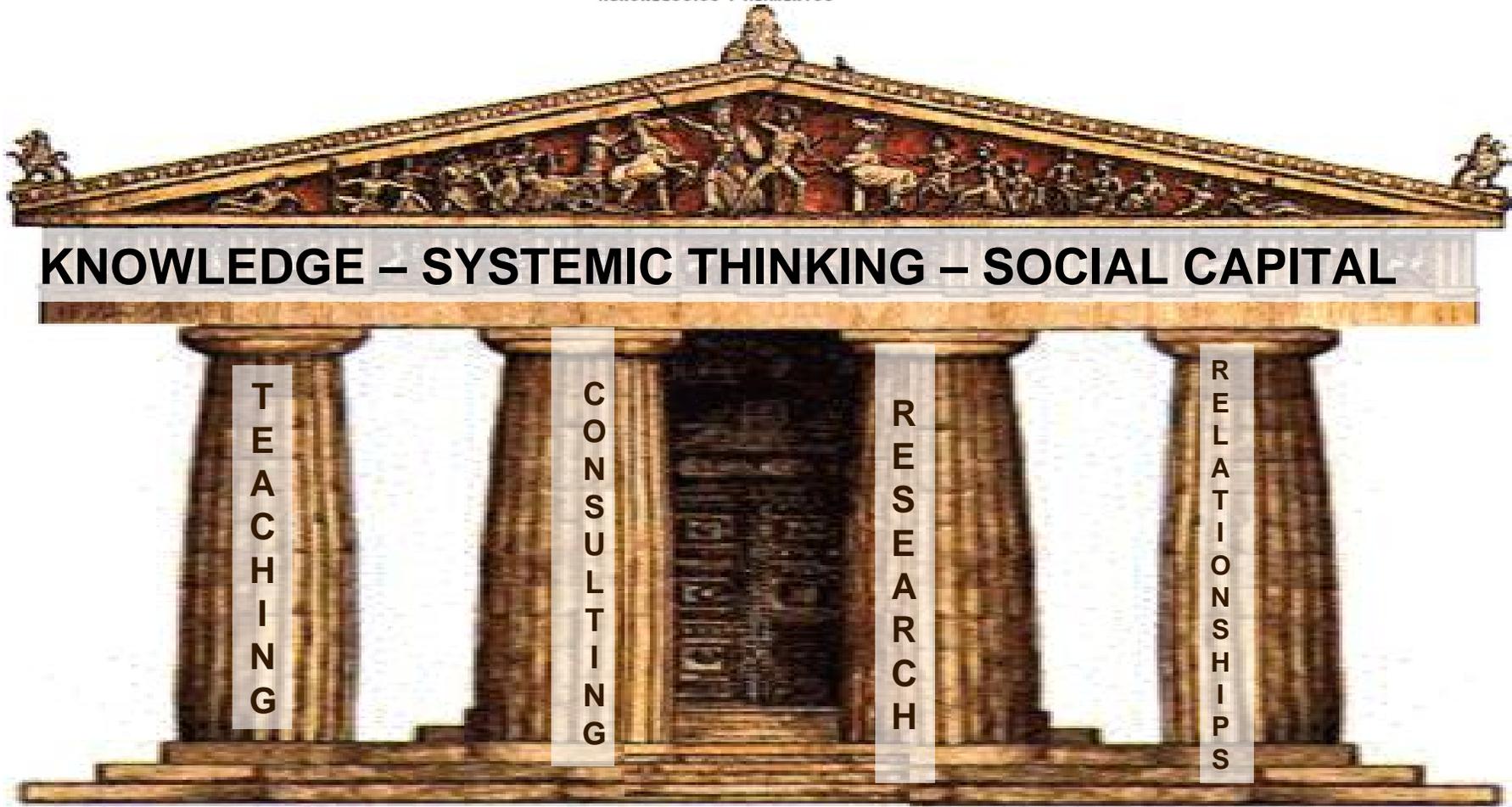
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PROGRAMA DE



AGRONEGOCIOS Y ALIMENTOS



KNOWLEDGE – SYSTEMIC THINKING – SOCIAL CAPITAL

TEACHING

CONSULTING

RESEARCH

RELATIONSHIPS

TOTAL QUALITY

Problem statement

ARGENTINA ABRIBUSINESS

- 1st soybean oil world exporter
- 1st soybean meal world exporter
- 1st sunflower oil world exporter
- 1st sunflower meal world exporter
- 1st lemon world exporter
- 1st honey world exporter
- 1st pear world exporter
- 1st concentrated lemon juice world exporter
- 2nd corn world exporter
- 2nd sorghum world exporter
- 3rd soybean world exporter
- 3rd dry milk world exporter
- 3rd concentrated apple juice world exporter
- 5th wheat world exporter
- 8th beef world exporter
- 9th cheese world exporter
- 10th wine world exporter

Problem statement

 The paper is centralized in the agricultural sector in Argentina.

 During 90s reduction of State intervention (export taxes, agribusiness costs, long terms business rules)

 Technologies investments: no till cropping systems, (rotation, fertilizers, agrochemicals), GMO seeds, GPS, custom management.

 Producers developed complex organizational arrangements and business relationships involving contractors, producers, suppliers, processors, exporters and individual investors (hybrid forms).

Problem statement

- Macroeconomic crises and institutional shocks starting in December 2001.
- Negative collective action, rent seeking behavior and contractual hold-ups became the norm. New players no experience in the sector.
- Low micro transaction costs, high macro transaction costs after 2004.

Table 1. Planted area and production of four major crops in Argentina (1992-2008)

	1992	2000	2008	% Growth (1992-2008)
Planted area (in million hectares)	14.5	22.7	28.0	93.1%
Production (in million metric tons)	35.5	58.3	88.0	147.8%



No till system

Rotation: Diversity and Intensity





Balanced Nutrition



Integrated Pest Management/Control



Responsible agrochemicals management

Custom Management



Objectives

The objective of this paper is to explore and describe the organizational changes –in particular, the emergence of hybrid structures– in the Argentine crop production sector.

Procedures

 Multiple case study methodology:

- a) informal hybrid forms;
- b) an agricultural trust fund (known as *fideicomiso*) which has both producers and outside investors as partners;
- c) an investor-oriented corporate structure; and
- d) a large network of networks (many private nodes in relation with other private nodes including landowners, agronomists, branch managers, contractors, and service providers).

 Primary data collection: personal e-mailed interviews using a standardized questionnaire with close-ended questions. A total of 8 experts and CEOs of the agribusiness hybrid forms were interviewed

Theoretical framework



Transaction cost economics:

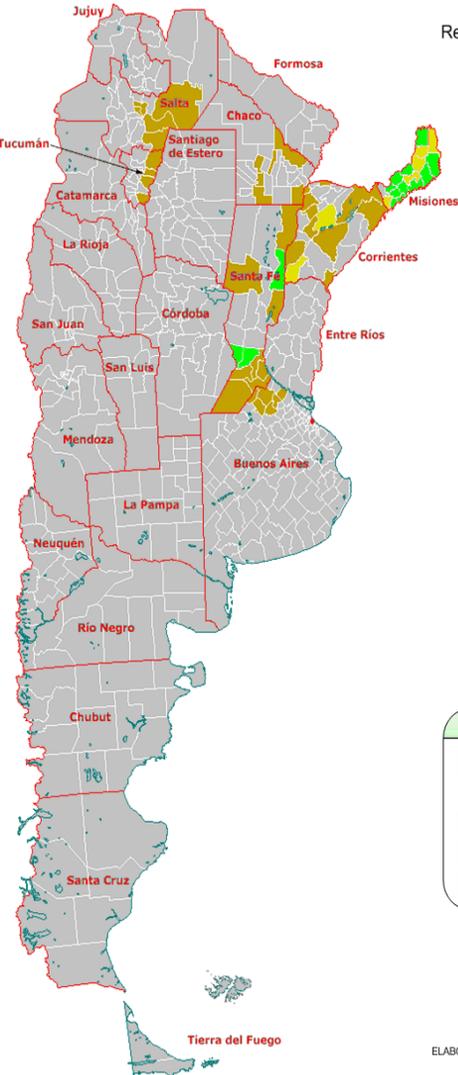
- Firms, markets, contracts (governance structures)
- Make-or-buy decision (Coase)
- Attributes of transaction: uncertainty, frequency, specific assets (Williamson)
- Hybrid arrangements: networks, supply chains coordination, franchise agreements, partnerships and cooperatives (Ménard)
 - three common features or “regularities”: pooling, contracting and competing.
 - the role of contracts in hybrid arrangements is crucial in coordinating partners and sharing quasi rents



Organizational interdependence (netchain approach):

- integrates supply chain analysis (SCA) and network analysis (NA)
- Based in “interdependencies”: sequential, reciprocal

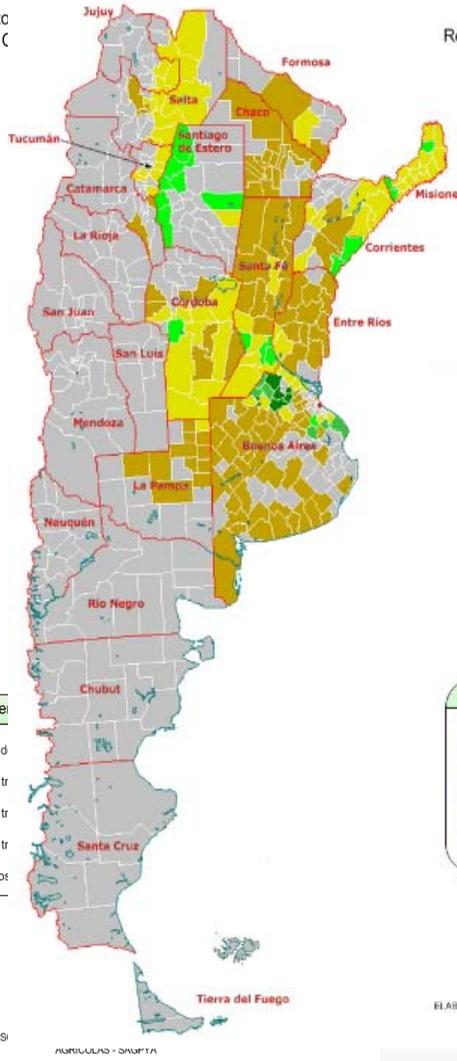
Argentine agricultural business



Rendimiento (t/ha)



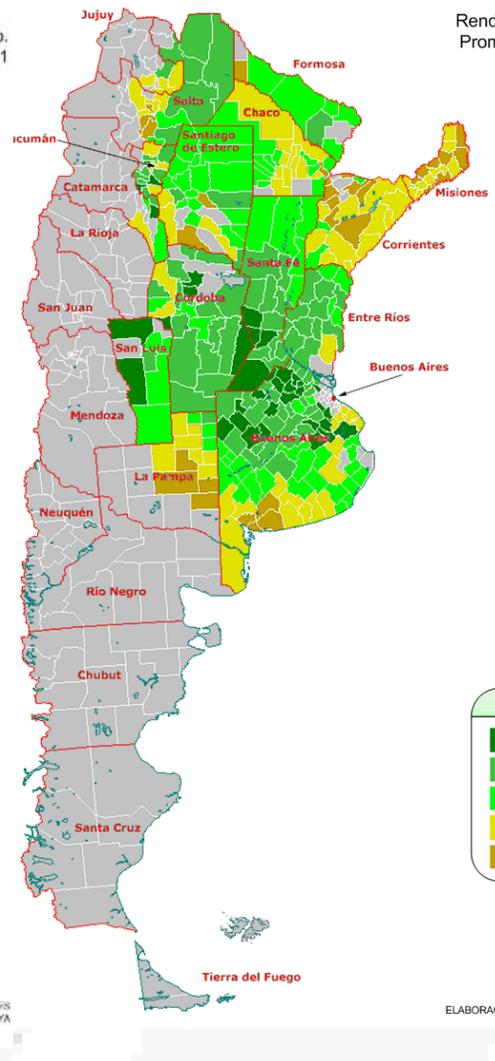
ELABORACION PAA SI



Rendimiento de soja por partido. Campaña 1980/1981



ELABORACION PAA SOBRE DATOS DE ESTIMACIONES AGRICOLAS - SAGPYA



Rendimiento de soja por partido. Promedio ponderado campañas 1969/1970 a 2007/2008

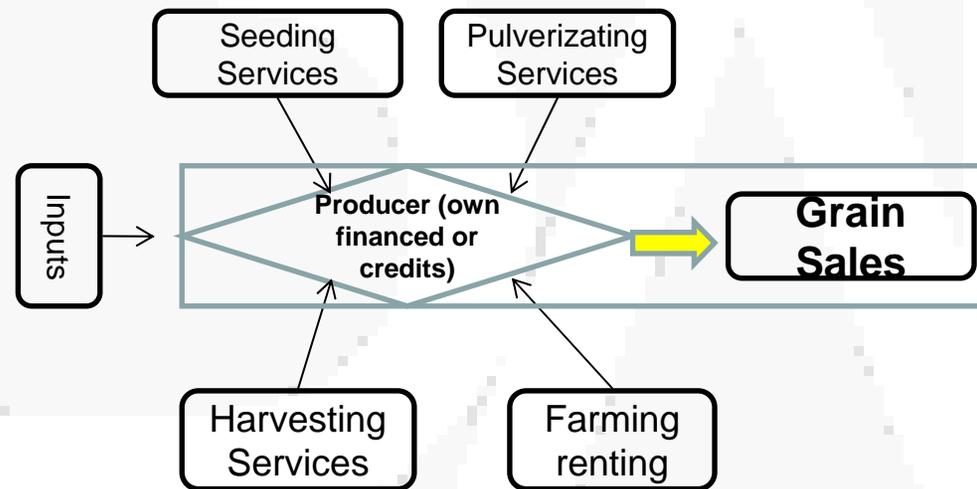


ELABORACION PAA SOBRE DATOS DE ESTIMACIONES AGRICOLAS - SAGPYA

Multiple case study

Informal hybrid forms

- These were the first to arise, at the end of the 1980s.
- Pool of producers interconnected by formal or informal contracts of technological actions related to production
- The producer pays for the services he/she needs
- Contractual forms: fixed prices of based on a percentage of the production (short term contracts)
- Informal character of the contract increases the uncertainty
- Areas range from 3,000 to 10,000 hectares

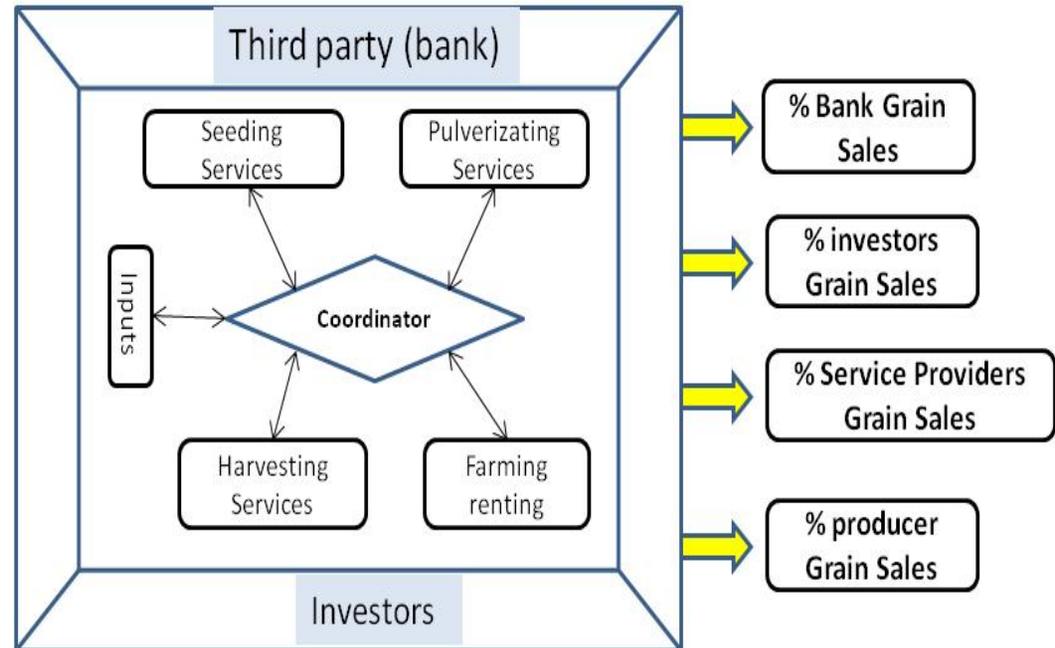


Interfirm collaboration type: sequential

Multiple case study (cont.)

Agricultural Trust Fund (Fideicomiso):

- Contractual figure in force by Law 24,441/95
- Important for financing
- Organization: investor and a group of actors, linked to an investment capital receiver (the coordinator of the organization), and a third party (bank) to enforce the contract
- Coordinator => manage short term contracts and operations (seeding, harvesting, etc.)
- High level of information shares (low level of uncertainty)
- Areas range from 5,000 to 10,000 hectares

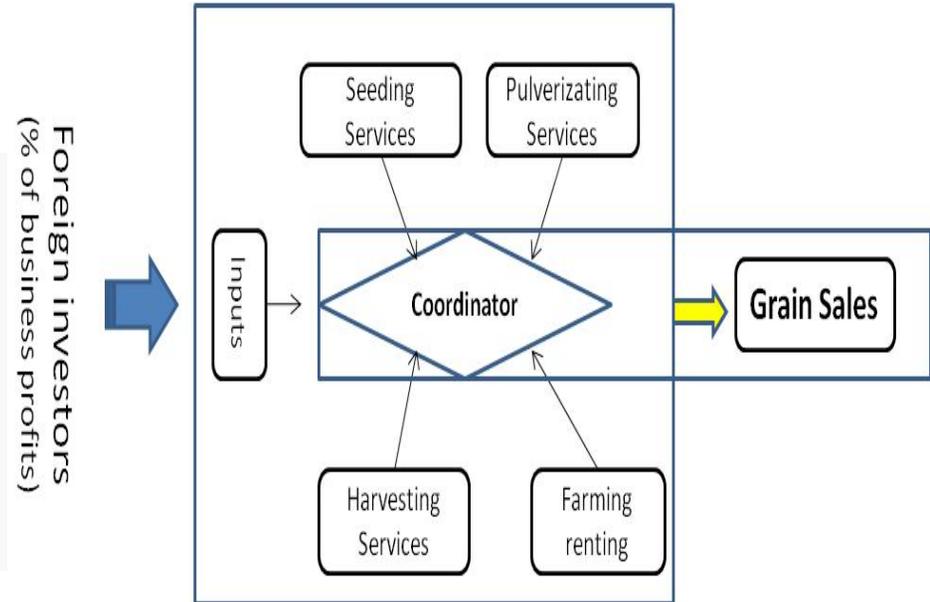


Interfirm collaboration type: combined

Multiple case study (cont.)

Investor-Oriented Corporate Structure:

- Agricultural production by taking capital funds from several partners
- Investors may receive one fixed percentage-based payment, or they may participate in the future risks and benefits of the business.
- The coordinator of the system –often not a land owner– coordinates medium terms contracts among different service suppliers and tenants.
- Regarding land leases, these coordinators in general choose to pay cash in advance to the owners of the land.
- The coordinator’s profit equals the difference between the income, on the one hand, and the production costs (inputs, services, land leasing) and investor’s participation on the other.
- Importance of trust for reduction of uncertainty
- Areas range from 10,000 to 100,000 hectares

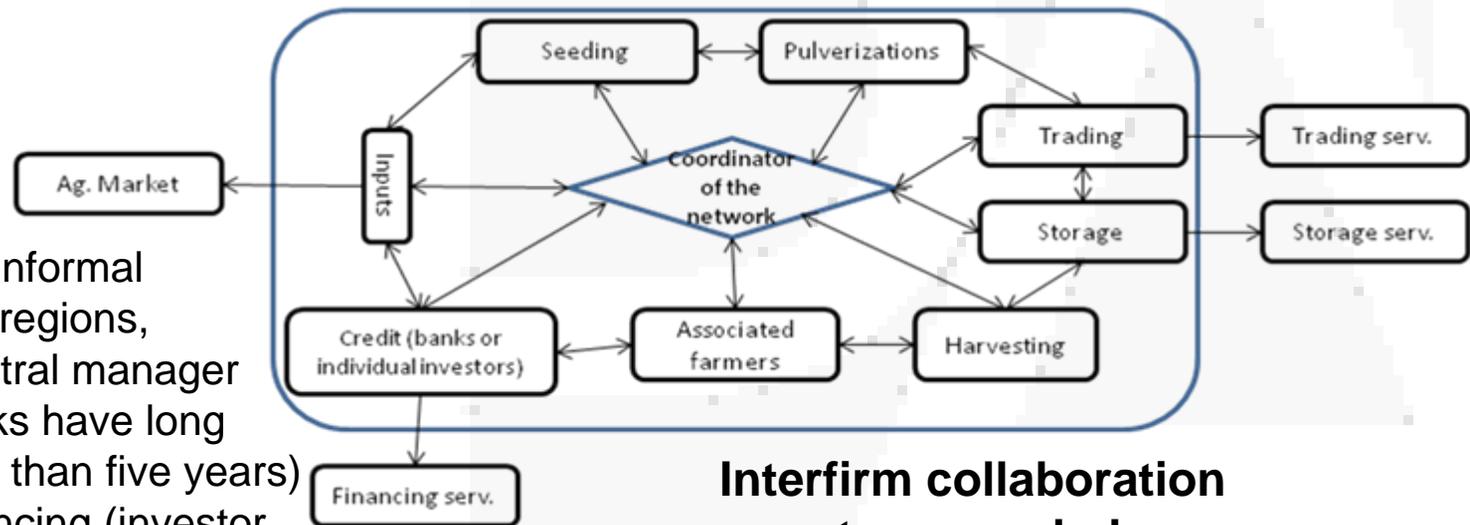


Interfirm collaboration type: combined

Multiple case study (cont.)

Network of Networks:

- The strategy of this type of organization is based on creating a network of contractors with local, specific knowledge
- The coordinator “opens” business units in different regions similarly to a franchise system.



**Interfirm collaboration
 type: pooled**

- Sum of formal and informal networks in different regions, coordinated by a central manager
- Network of networks have long term contracts (more than five years)
- Many types of financing (investor oriented, trust funds, own sources, banks, equity markets, input companies, etc.)
- Management is totally decentralized

Conclusions

- Starting with the innovations of the 1990s, producers and service suppliers developed a complex contracting system (hybrid forms) in order to expand agricultural production, gain scale economies, and produce in until then almost virgin areas.
- Following the Argentine crisis in 2001 and 2002, these actors also started to create alliances with other actors outside the formal agrifood business circuit. Banks, financial organizations and even common people began to finance the agricultural sector.
- The different organizational forms described in this multiple case study explain the different ways to coordinate transactions in Argentine agriculture

	Informal hybrid forms	Trust fund	Investor oriented	Network of networks
Presence in the system	20 years	6 years	15 years	15 years
Type of contract	Informal	Formal	Formal	Formal and informal (trust)
Actors involved	Producers, services providers	Banks, lawyers, financial organizations, coordinator (administration company) of service and contracts with producers, services and inputs providers	Coordinator of services-contracts-inputs, capital investors, lawyers, accountant	Coordinator, producers, services providers, inputs companies, banks, investors, investors partners (infrastructure, technology, information)
Duration of contract	Short-medium term (one-three years)	Short-medium term (one-five years)	Short term (one year)	Long term (more than 5 years)
Share of information	It depends on the contract (generally little)	High/total	High/total	High/total
Average productive area (based in real cases)	3,000 to 10,000 hectares. Own and rented area	5,000-10,000 hectares. Rented area mainly	10,000-100,000 hectares Rented area	20,000-350,000 hectares Own and rented area
Financial sources	Owned capital and inputs companies	Financial arrangements with banks	Financial arrangements with external investors	Owned, banks and external investors, inputs companies
Frequency of transaction	Medium	Medium	Low (investors), High (service providers)	High
Level of organizational uncertainty	Medium	Low	Low	Low (importance of trust)
Level of trust / reputation	Not very important	High	High	High
Incentives and control	Low	High	High	Very high
Specific assets	Know how. Low level	Know how, reputation of actors. Medium level	Know how, reputation of actors. Medium level	Know how, reputation of actors, technology (innovations). High level
Joint or individual investments	Individual	Individual	Individual. In some cases collective	Collective
Interfirm collaboration (pooled, sequential, reciprocal)	Sequential	Combined	Combined	Reciprocal

Conclusions (cont.)

- The risks are those inherent to agriculture, added to Argentina's institutional risks.
- However, experts consulted state that these organizational forms are highly flexible and show a great capacity to adapt to the challenges of the knowledge society:
 - Hybrid forms constitute autonomous specialized nodes that work in a coordinated fashion assisted by modern information and communication technologies (ICT), trust, a shared vision, and the capacity to coordinate different agricultural processes.
- Currently, institutional uncertainty (related to export taxes, export control), international uncertainty (with increased commodity price volatility) and production issues (related to changing weather patterns) have generated a new paradigm in Argentine agriculture (financial restrictions)
- Perhaps a new form of hybrid organization in a sustainable way will arise.

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THANK YOU VERY MUCH



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