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# **BUILDING INNOVATION SYSTEMS IN NATURAL RESOURCE-BASED INDUSTRIES**

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**GLOBAL INNOVATION POLICY DIALOGUE**

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## OLD VIEW/NEW VIEWS

- A VIEW OF DEVELOPING COUNTRIES AS  
‘TECHNOLOGY USERS’ RATHER THAN AS  
‘TECHNOLOGY PRODUCERS’;
- A FOCUS ON BUILDING A ‘SYSTEM OF  
PRODUCTION’ AS OPPOSED TO ‘A SYSTEM OF  
INNOVATION’
- AN UNDERSTANDING OF DEVELOPMENT AS A  
SHIFT AWAY FROM ‘TRADITIONAL’ SECTORS  
AND TOWARDS ‘HIGH TECH’ SECTORS.

## **WHY A FOCUS ON INNOVATION ?**

- **GROWING KNOWLEDGE-INTENSITY OF PRODUCTION ACROSS ALL SECTORS BLURS THE DISTINCTION BETWEEN ‘HIGH TECH’ AND ‘TRADITIONAL’ INDUSTRIES**
- **EMERGENCE AND DIFFUSION OF INNOVATION- BASED COMPETITION IS TAKING PLACE EVEN IN FORMER COMMODITY-BASED SECTORS LIKE AGRICULTURE**
- **FIRMS NEED TO ENGAGE IN A CONTINUOUS PROCESS OF LEARNING AND INNOVATION TO COMPETE UNDER THESE NEW CONDITIONS.**



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# **THE UNU-INTECH/CTA PROJECT STRENGTHENING AGRICULTURAL INNOVATION SYSTEMS**

## **THE STIMULUS**

- **FORTHCOMING EU-ACP  
NEGOTIATIONS ON TRADE IN  
AGRICULTURAL PRODUCTS**

## **RETHINKING TRADE IN DEVELOPMENT TERMS**

- **TRADE AS A STIMULUS TO  
INNOVATION, NOT AS AN END IN  
ITSELF**

## **NEW THINKING ON INNOVATION**

- **INNOVATION AS AN INTERACTIVE  
PROCESS EMBEDDED IN A BROAD**



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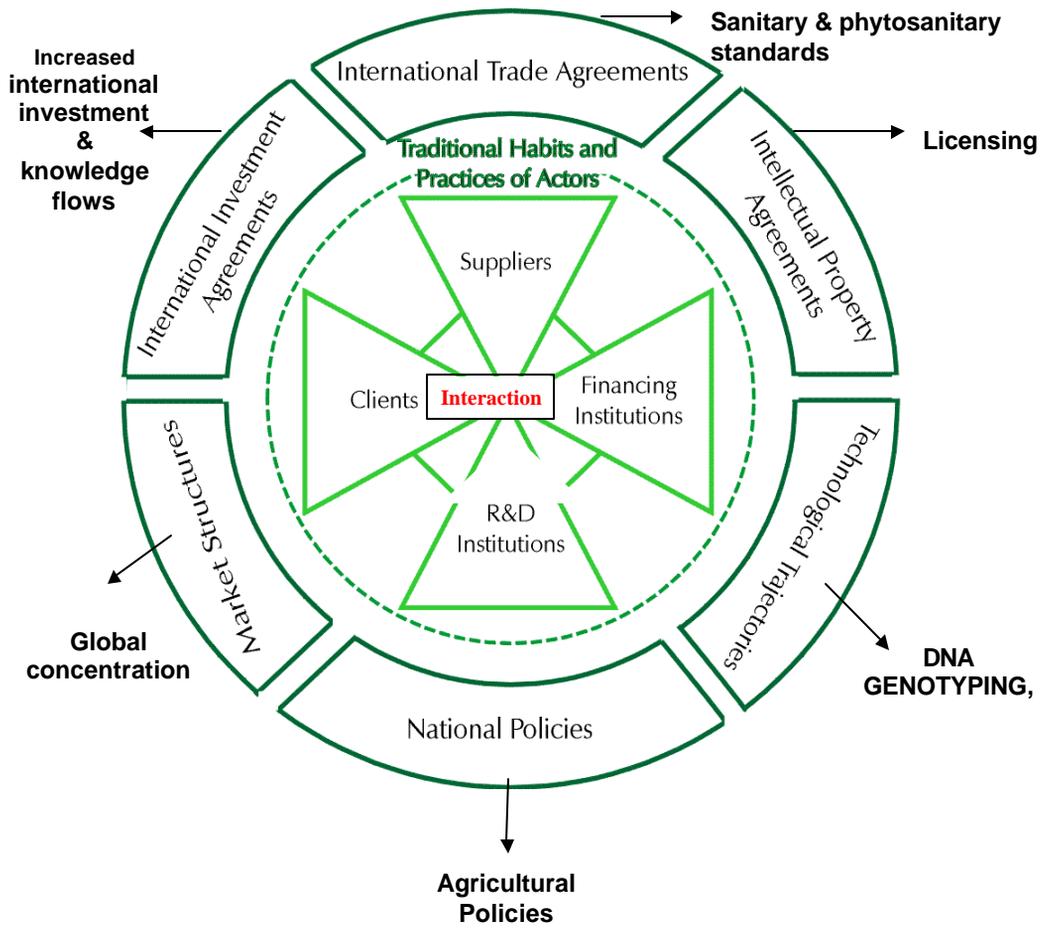
## **INNOVATION SYSTEMS**

**SETS OF FIRMS AND OTHER ECONOMIC AGENTS, WHO,**

**TOGETHER WITH THE INSTITUTIONS AND POLICIES THAT INFLUENCE THEIR INNOVATIVE BEHAVIOR & PERFORMANCE,**

**BRING NEW PROCESSES, PRODUCTS AND ORGANIZATIONAL FORMS INTO ECONOMIC USE**

# Agricultural Innovation Systems



Adapted from: Lynn K. Mytelka, "Local Systems of Innovation in a Globalized World Economy" in *Industry and Innovation*, Vol. 7. No. 1, June 2000



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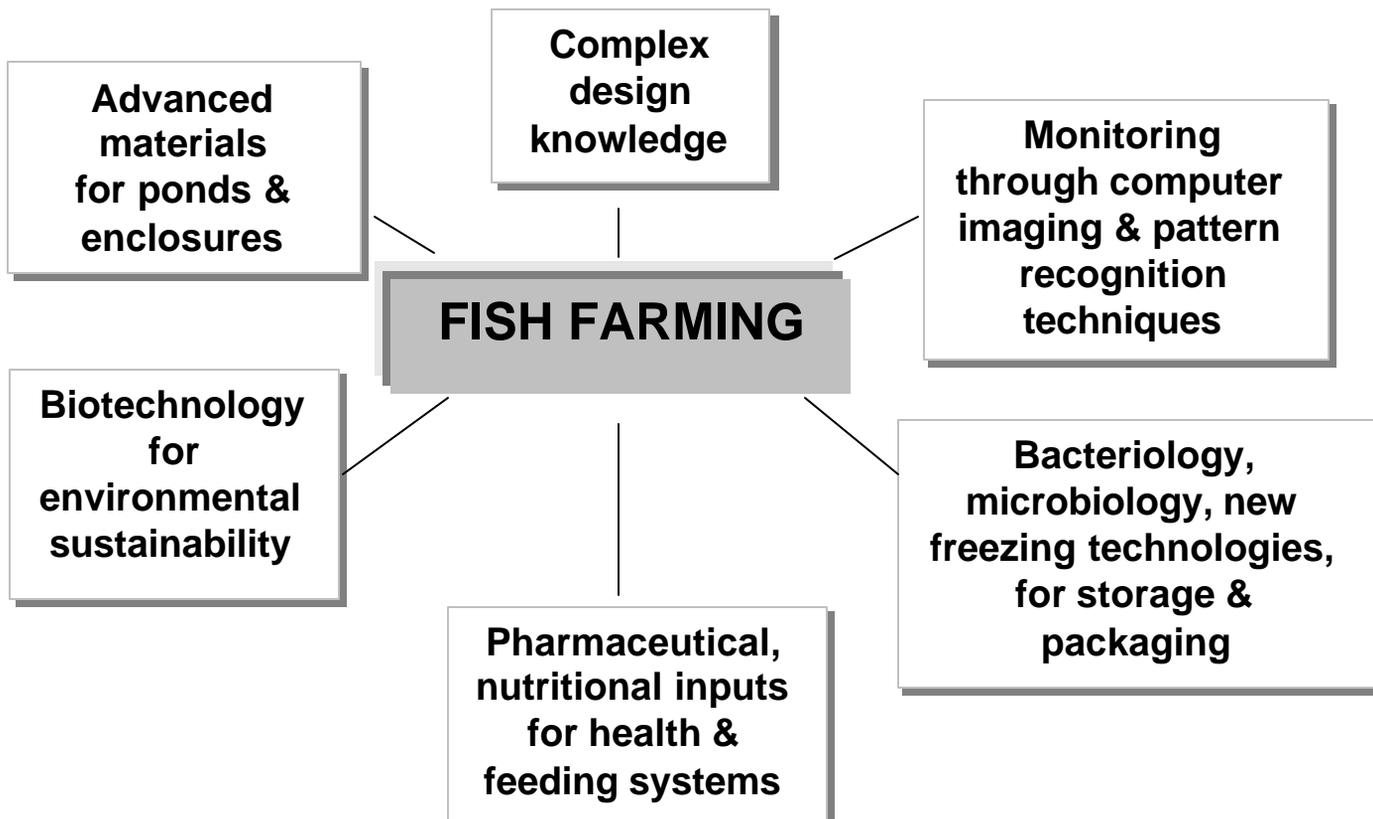
## **INNOVATION SYSTEMS**

**HAVE THE CAPACITY TO TRANSFORM  
THEMSELVES OVERTIME AS COMPETITIVE  
CONDITIONS CHANGE**

**OF CRITICAL IMPORTANCE IN THIS PROCESS  
IS THE ROLE OF KNOWLEDGE**



# FOOD INDUSTRIES



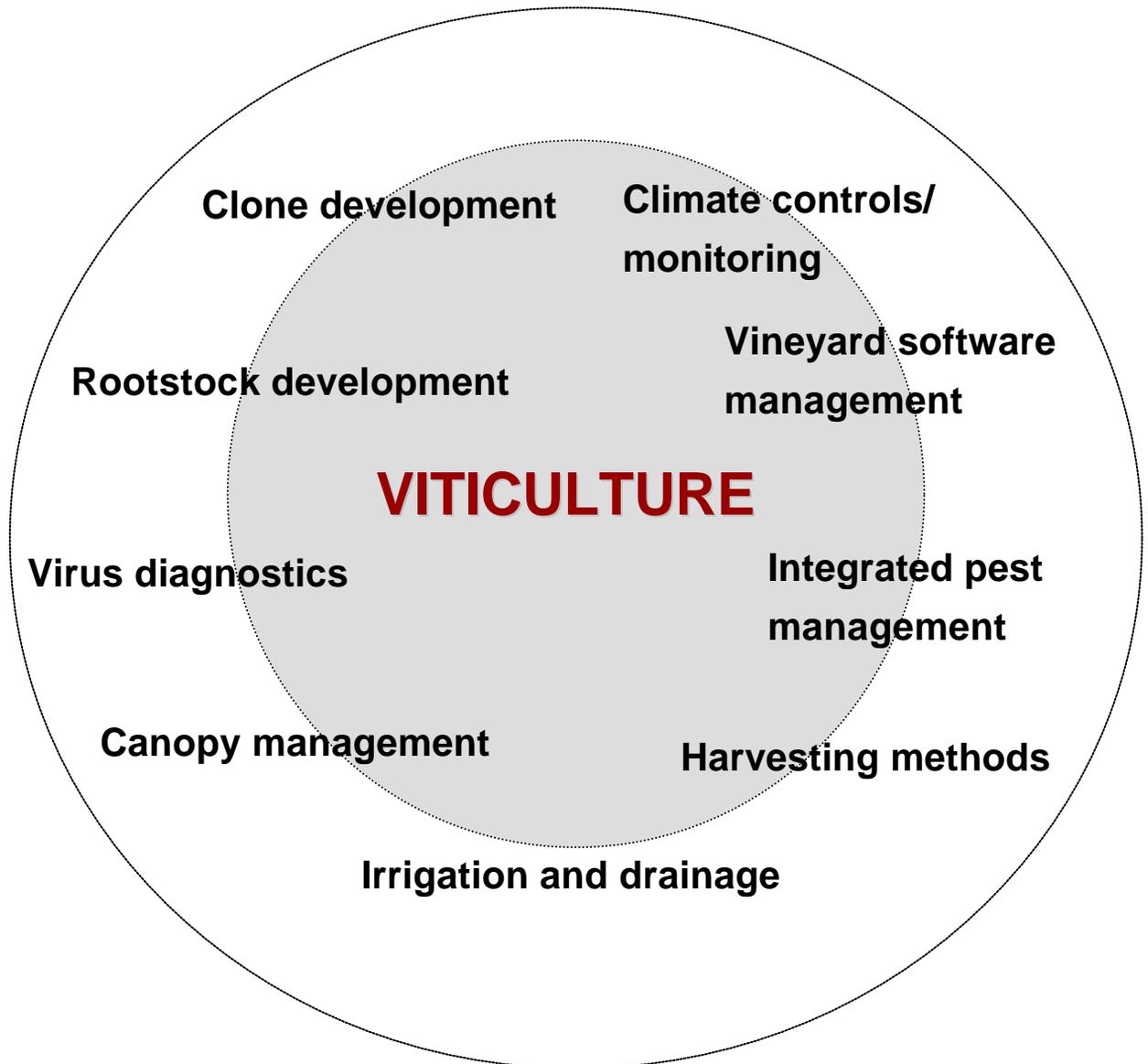


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## KNOWLEDGE BASES IN THE WINE SECTOR

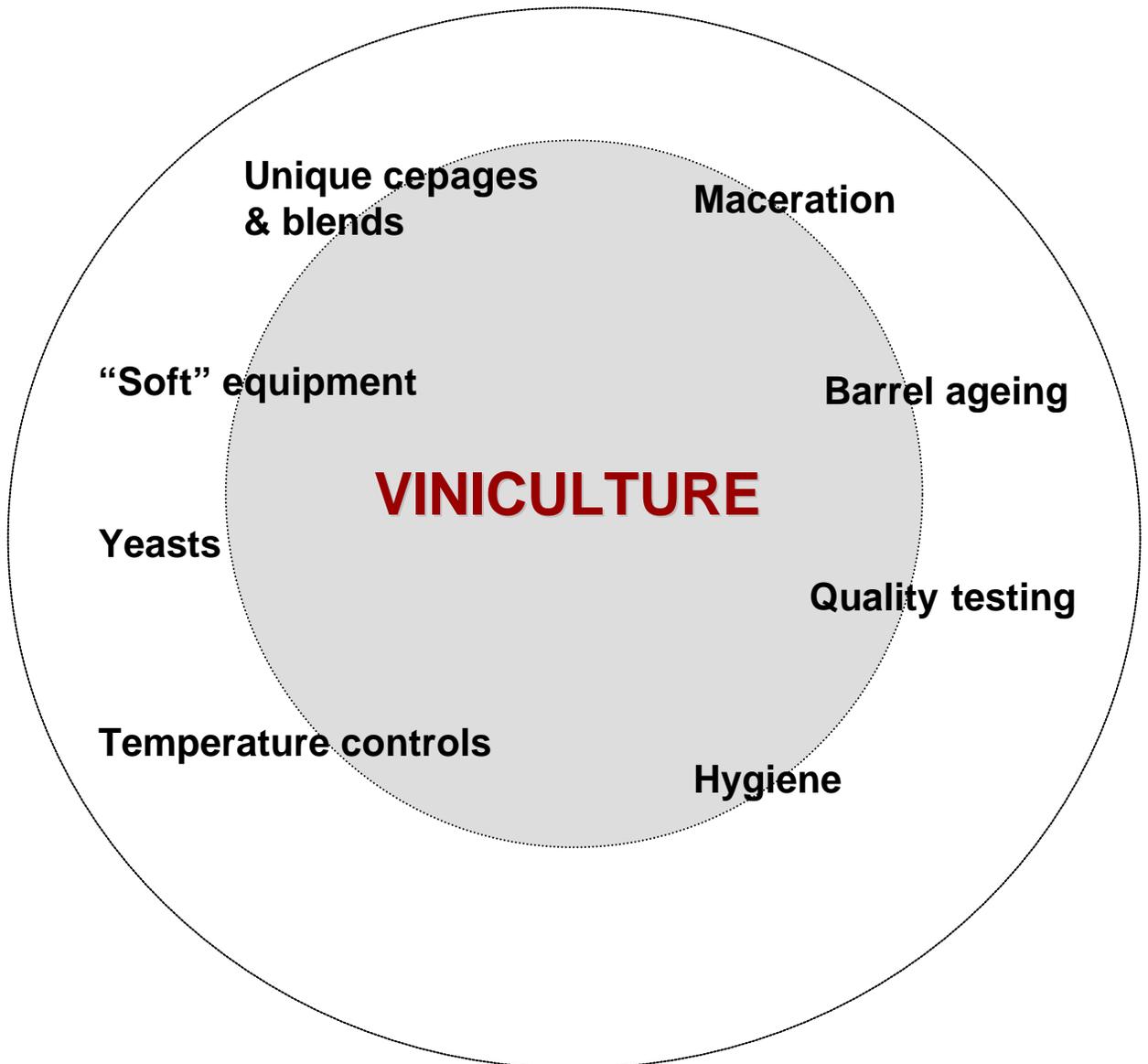




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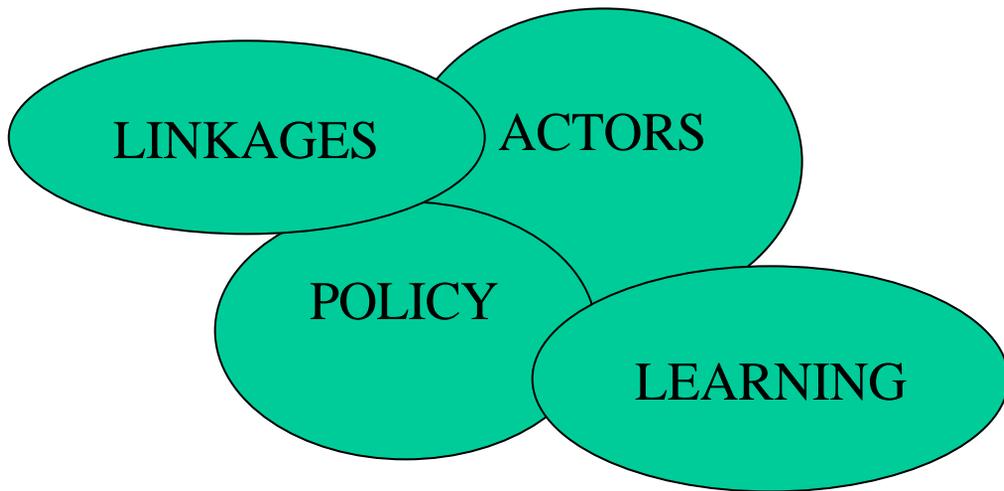


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# ANALYZING AGRICULTURAL INNOVATION SYSTEMS





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# **The SA wine sector in the apartheid era**

- **KWV controlled prices and surpluses through quota system**
- **Production focussed on maximising yields**
- **Standardised products**
- **KWV sole exporter, marketer, distributor**
- **Exploitative labour practices**
- **Stagnant domestic market**



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## **Learning to Change: 1994 - 1999**

- **Quota system abolished end 80's**
- **Sanctions lifted**
- **KWV converts to a company leaving a void in distribution**
- **Competency gaps in marketing revealed**
- **Limited industry coordination and strategic planning**



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# **The Emergence of a Strategy: 1999 – 2003**

- **New players, New linkages**
- **Winetech launches Vision 2020  
focus on knowledge**
- **Focus on quality and *terroir***
- **Planting changed in line with  
world trends**
- **Wosa focused on building Brand  
South Africa**



## **Innovation**

- **Production *terroir* focussed**
- **Funding for research and development high**
- **Strong knowledge of soil science**
- **Apply low yield viticulture to increase quality of grapes**
- **Increase skills of farm workers & managers**
- **Winemakers combine modern technology with tacit knowledge**
- **Significant investment in cellar upgrades**
- **Create unique South African varieties:  
Pinotage – a cross between Pinot Noire and Cinsaut**
- **Brand South Africa**
- **International distribution**



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## **BUILDING INNOVATION SYSTEMS IN TRADITIONAL INDUSTRIES**

- **Boundaries of the knowledge system are reconfigured by establishing linkages to a wider set of knowledge inputs**
- **Products and Markets are reconceptualized**
- **Linkages are developed and the flows of knowledge and information increase**
- **Competencies are deepened and new competencies acquired**
- **Old institutions and organizations are transformed through the learning and unlearning of earlier habits and practices**



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**THANK YOU**