ELAN

European and Latin American
Technology based Business Network

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IS ANALYSIS FOR NANOTECHNOLOGY SECTOR AT COSTA RICA

Template: Delineation

Products	. Nanobioproducts .. New products from agriculture wastes … New materials analysis and generation ….Nanoreinforcements
Technologies	. Advanced instrumentation (TEM, AFM, DSC) .. Hyperthin multilayers … laboratorial and physics laboratory tests …. Nanoelectronics
Markets	. Advanced electronic and medical assembly companies .. Food companies … Agriculture improvement

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Template: Ambitions & Pathways

Ambitions (long term)	. To be a high developed country through new nanotechnology developments .. To improve food/agriculture national products … To become a central point at nanotech networks
Technological pathways	. To be involved into worldwide networks .. Strong European and LATAM academia and PYMEs links … Academia and Government support to PYMEs
Organisational pathways	. Government: MICITT, CONICIT, MAG, MEIC, others .. Academia: LANOTEC, University labs, research centres. … Private sector: Cooperatives, Industrial Chamber, others

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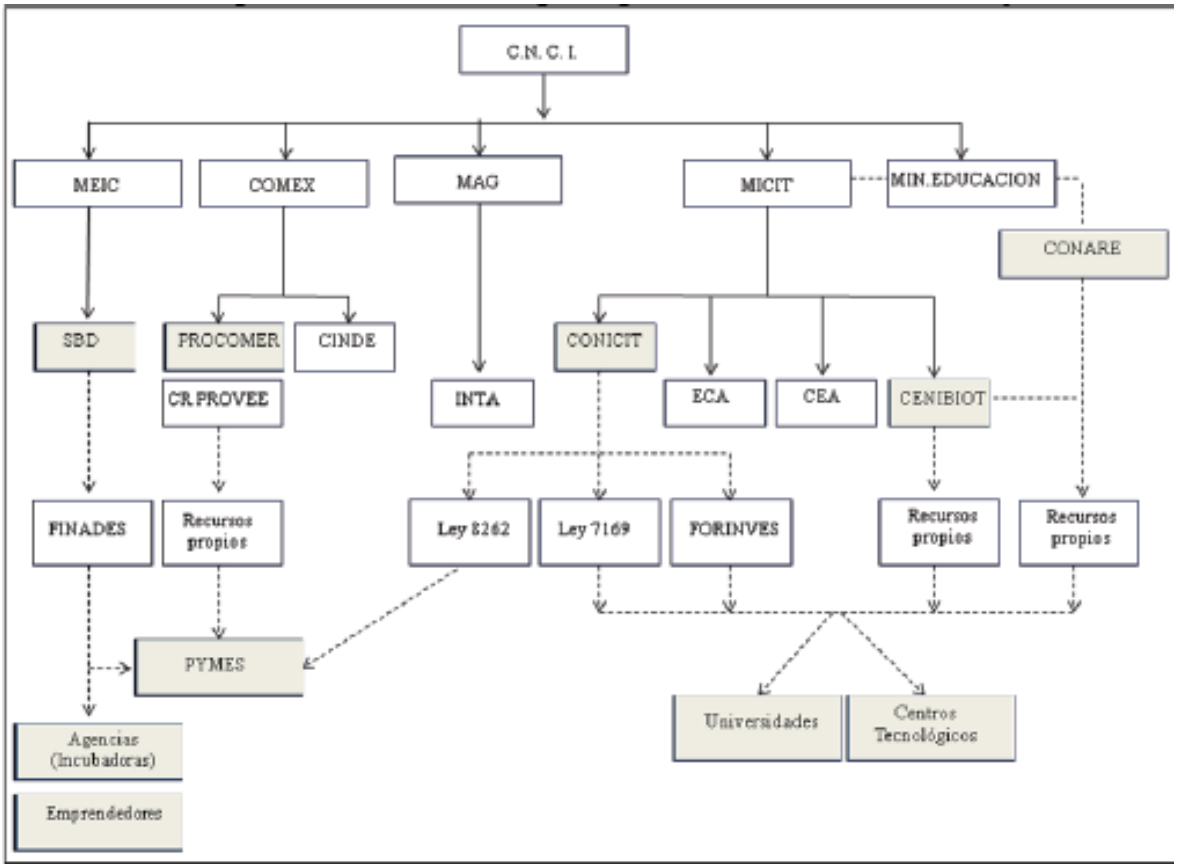
Actor mapping



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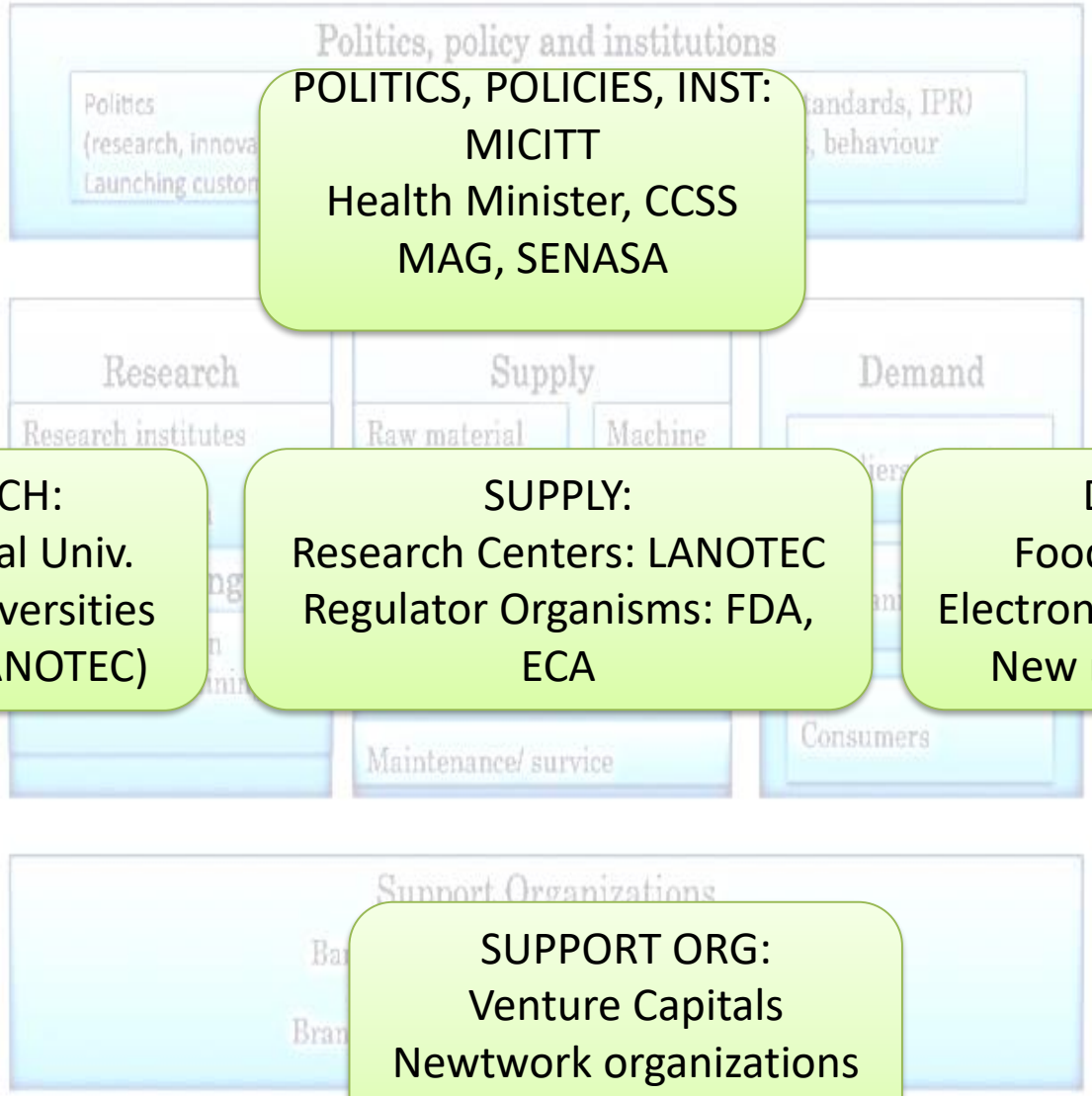
Template: Actor mapping



POLITICS, POLICIES, INST:
MICITT
Health Minister, CCSS
MAG, SENASA

RESEARCH:
International Univ.
National Universities
Nat Labs (LANOTEC)

SUPPLY:
Research Centers: LANOTEC
Regulator Organisms: FDA, ECA

DEMAND:
Food/agric Comp
Electronic/medical Comp
New material comp

SUPPORT ORG:
Venture Capitals
Newtwork organizations
Branch instit: CONICIT

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Template: Institutional drivers & barriers

Formal rules, policies, regulations	.National Health regulations .. International regulations/ norms (FDA, ISO 17025:2005) … Experiment national / International regulations.
Informal rules, norms, habits, way of working	.Protocols .. Quality Control Systems

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Template: Innovation functions

Functions

Research & Development

Explain to what extent these activities are sufficiently developed within the TIS. Evaluate by giving a grade: 1-10.

Name drivers and barriers underlying these activities.

	Drivers	Barriers
Academic research	High level researchers .. Credibility ... Asigned resourses	.. High tech equipments .. Right infraestructure .. Financial resourses
Industry research	I+D+i iniciatives .. Intelec property/patents .. Needs identified	.. High tech equipments .. Right infraestructure .. Financial resourses
Facilities, equipment, infrastructure	.. High tech equipments .. Right infraestructure .. Financial resourses	.. High tech equipments .. Right infraestructure .. Financial resourses

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Template: Innovation functions

Functions

Knowledge diffusion

Explain to what extent these activities are sufficiently developed within the TIS. Evaluate by giving a grade: 1-10.

Name drivers and barriers underlying these activities.

	Supporting	Hampering
R&D networks	.. Networks .. Research Interconections (HH.RR & Equipments) through internet, GIANT, Internet 2.	.. Limited budget access for difussion .. Networks stability.
Cross-industry cooperation	.. PROSALUD .. Communication Media	.. Unclear understanding of research processes and times ..
Public-Private-Partnerships	.. CR-BIOMED ..CONICIT	.. Limited resourses ..
International cooperation	.. Max Planck Institute .. International vinculation ... INSERM	.. Worldwide economical crisis .. Narrow minded politics

Template: Innovation functions

Functions

Entrepreneurial activities

Explain to what extent these activities are sufficiently developed within the TIS. Evaluate by giving a grade: 1-10.

Name drivers and barriers underlying these activities.

	Supporting	Hampering
Experiments, Demonstration	.. Effective initiatives support	.. Internal regulations .. ..
New business, start-ups	.. Activity spaces .. New iniciatives capacitation ..New iniciatives following	.. Low topics difussion .. Low new iniciatives development .. Poor venture capital access
User involvement	.. Regular ..	.. ..

Template: Innovation functions

Functions

Resource mobilisation

Explain to what extent these activities are sufficiently developed within the TIS. Evaluate by giving a grade: 1-10.

Name drivers and barriers underlying these activities.

	Supporting	Hampering
Non-financial resources	.. Enough HH. RR. .. HH. RR. Recovering after PhD studies	.. Not enough funds
Subsidies / Public funding	.. CONICIT .. PINN-BID	.. Unfriendly mechanisms for access ..
Investments / Private funding	.. CARAO, ICARO .. PROSALUD, FLORIDA	.. Low financial institutions/organizat ..
Market creation incentives (e.g. fiscal regulation)	.. Only for University researches ..	.. Very limited ..

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Template: Innovation functions

Functions
Guidance of the search, Political support / advocacy

Explain to what extent these activities are sufficiently developed within the TIS. Evaluate by giving a grade: 1-10.

Name drivers and barriers underlying these activities.

	Supporting	Hampering
Expectations / Public perception	.. Credibility .. Clear image .. High spectations	.. Spectative of great success with low cost (almost free) .. ..
Lobby / interest groups	.. Beneficiary sectors interest ..Proposals availability .. Lobby Spaces (S.XXI)	.. Short time results spectatives .. ..
Policy directives / incentives (e.g. policy targets)	.. National Development Plan .. I+D+i Inform	.. Implementation time .. Politic interests

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Template: SWOT analysis

STRENGTHS

- Strong academic knowledge.
- Human calified resourses
- High technology laboratories and research centers.
- -High level equipments.
- Estrategia Siglo Xxi
- ublic Universities
- overnment Efforts

WEAKNESSES

- Poor vinculation between PYMEs, government funds and high level laboratories
- Not so much clear picture about opportunities and national resourses
- Poor private sector investment.
- oriented public sector investment.

TIS Internal factors

OPPORTUNITIES

- New developments at high technology levels.
- New markets oppening
- Economic globalization
- TICs development
- Standarization/quality Systems

THREATS

- Protectionist policies
- Poor access to international vinculation funds
- Worldwide economical crisis
- Cultural differences not understoo
- New low cost productive regions.
- ifferent regulation Systems at ifferent regions/countries.
- ir competition

TIS External factors

Positive contribution to innovation pathways

Negative contribution to innovation pathways

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