

## **PARTNERSHIPS BETWEEN RESEARCH INSTITUTES AND ENTERPRISES: IPT'S EXPERIENCES**

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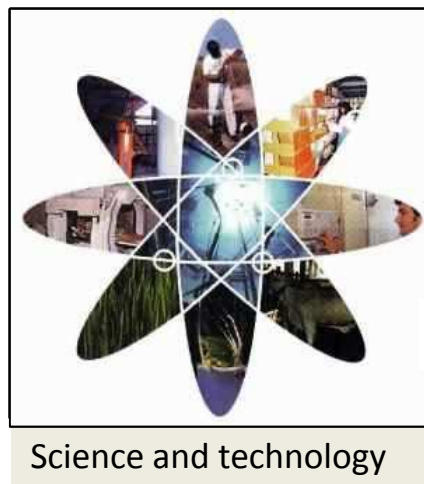
03/09/2014

# Agenda

- Context
- Purpose
- Research Institute - IPT
- Financial Support for R&D projects
  - Embrapii
  - Funtec
- IPT's business process to develop partnership for R&D projects
- Lessons and challenges

# Context

- Economic of developed countries are based in knowledge paradigm
  - Virtuous cycle of:
    - Science – knowledge – innovation/market value



Science and technology - knowledge



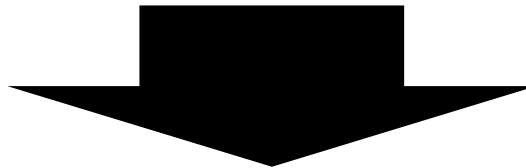
Firms transform knowledge in innovation



# Context

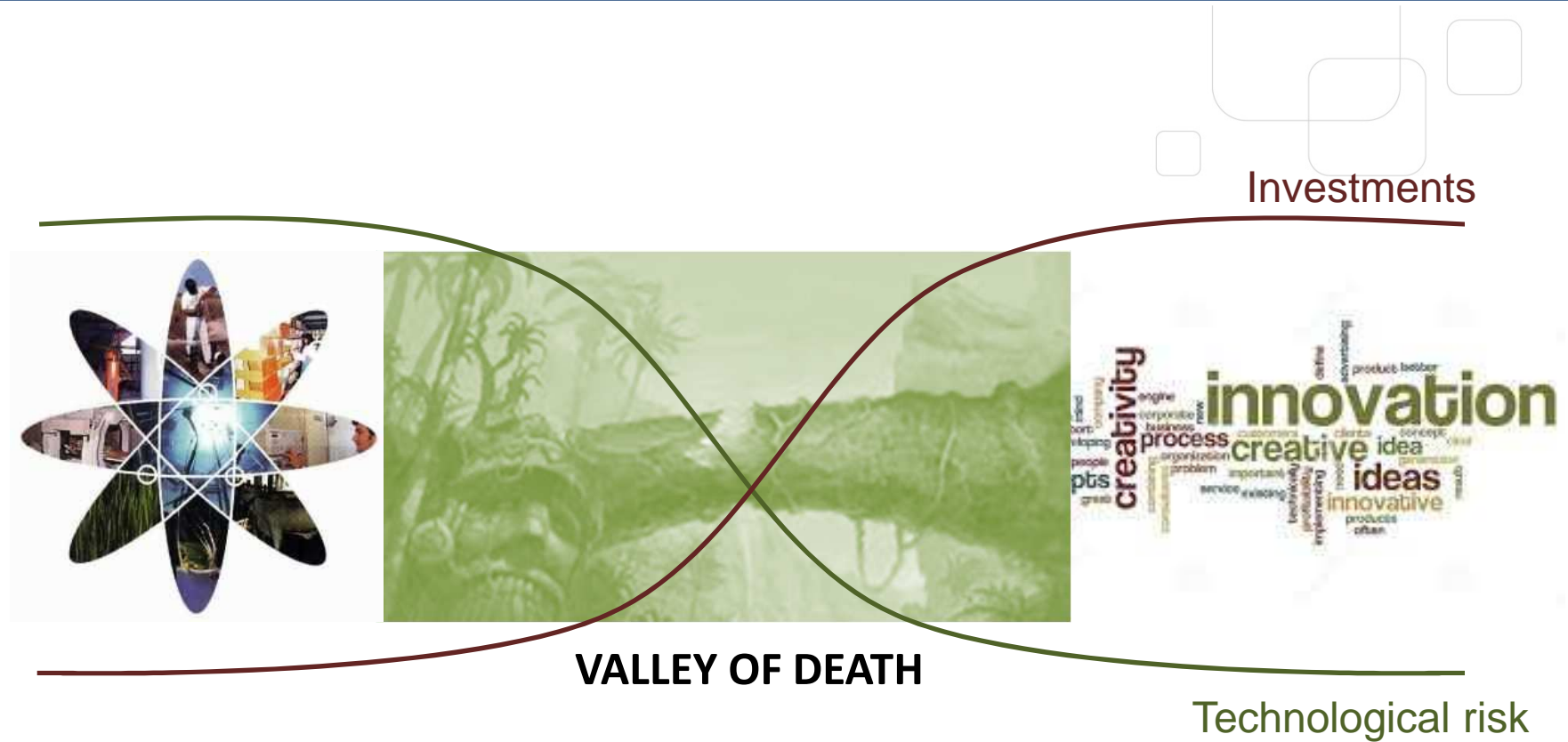
## Brazil challenge

- ✓ 6<sup>th</sup> world economy
- ✓ 13<sup>rd</sup> position being responsible of 2 % global scientific production
- ✗ Responsible 0,2 % of global patents
- ✗ 58<sup>th</sup> innovative country



Brazil must change this reality

# Context



# Purpose

Present the IPT's recent experiences by developing R&D projects in partnership with companies and supported by government programs - Embrapii and Funtec.

- Business process
- Lessons and challenges for build this partnerships with companies



# IPT – Technological Research Institute

- Foundation – 1899
- Company controlled by State of São Paulo Government
- Around 1.200 employees (430 researchers)
- Budget - R\$ 153 millions (2013)  
– 60 % from projects with companies





# IPT - Technological Activities (2013)



## **Innovation, research and development**

21 % of the total revenue



## **Technological Services**

29 % of the total revenue



## **Development and metrological support**

49 % of the total revenue



## **Information and technology education**

1 % of the total revenue



# Brazilian Association Of Industry Research and Innovation



- Support project of R&D&I developed in partnership of companies and ISTs
- ISTs must be an Embrapii Unit to get fund for researches in knowledge area predefined\*
  - Embrapii gives resources in advanced
  - IST negotiates projects with companies to develop the R&D projects in those area of knowledge
- Fund of R&D projects (non reimbursable resource)
  - 1/3 from company
  - 1/3 from Embrapii
  - 1/3 from IST
- IPT is a Embrapii Unit since 2009



Required a sale and management effort of IST – contract goals to reach

\*IPT – nanotechnology, biotechnology, microthechnology and new materials

# Technology Fund (Funtec) – Brazilian Development Bank



- Support project of R&D developed in partnership of companies and ISTs
- Project must be approved in an public call to get resources to its development
- Fund of R&D projects (non reimbursable resources):
  - Up to 90 % from BNDES
  - Minimum of 10 % from company
- First call was in 2008
- IPT have been project support since 2008.

A green starburst graphic with a yellow outline, containing the text 'Required a management effort of IST'.

Required a management  
effort of IST

# IPT's contracts with Embrapii's financial support

Project's Contracts (R\$ 1000)	
Number	20
Execution period	June/2016
Total Amount	54.733
Financial Amount (Embrapii and Companies)	37.593
Costs expenses	31.904
Capital expenses	5.689
Economic Amount (IPT)	17.140



InterCement



Elekeiroz  
Compromisso com a Sustentabilidade Ambiental,  
Social e Econômica.



LIBBS

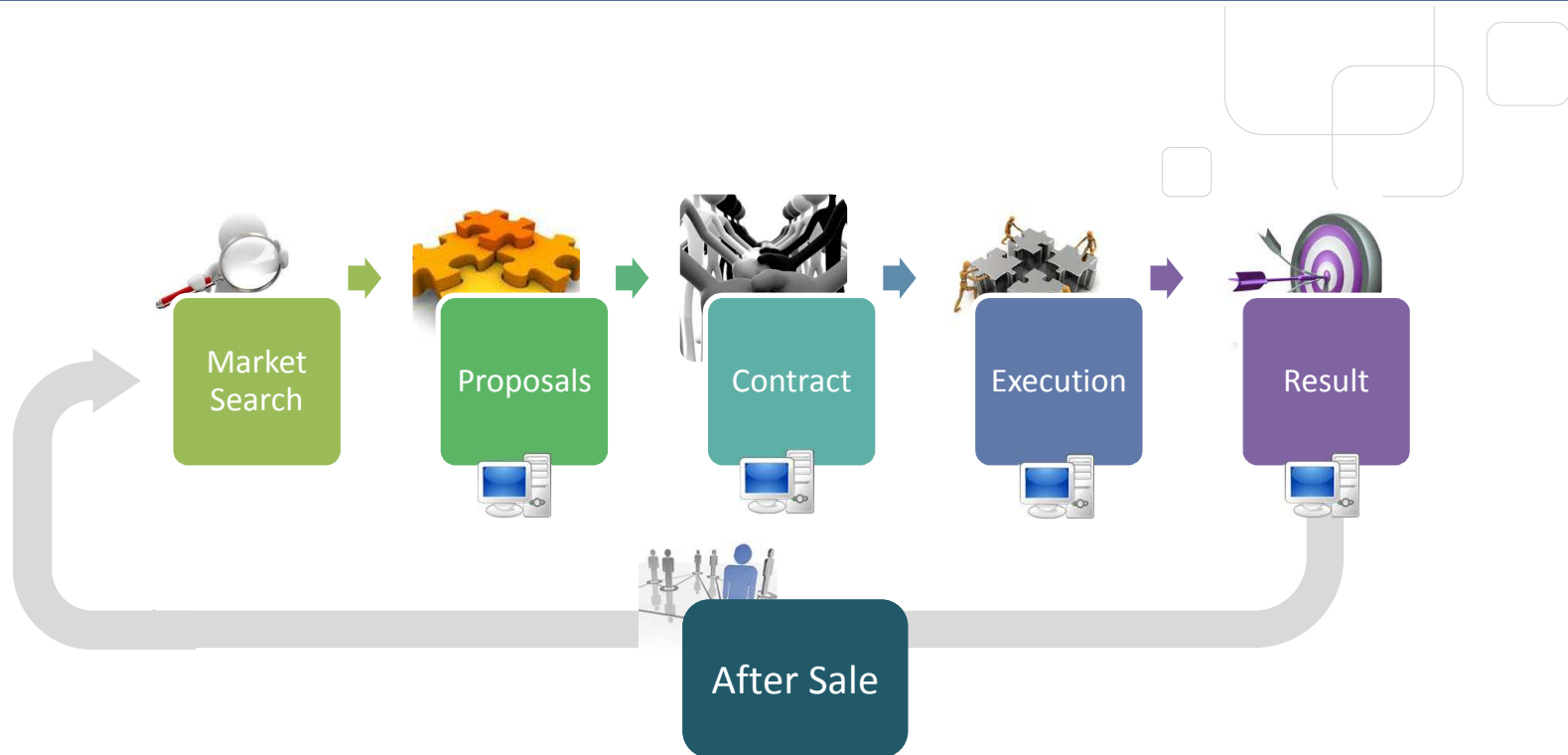


# IPT's contracts with Funtec's financial support

Project's Contracts (R\$ 1000)	
Number	7
Execution period	Feb./2017
Total Amount	94.400
Financial Amount (Funtec)	86.500
Financial Amount (Companies)	7.900



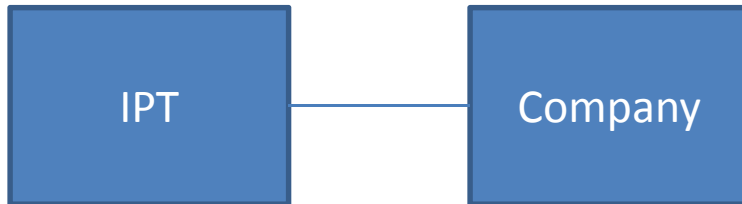
# IPT Business Process



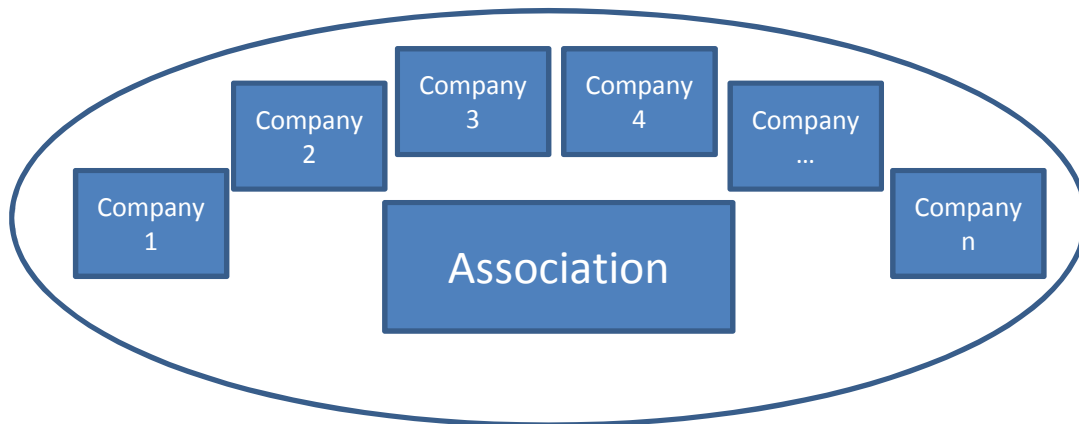
Funtec – effort is in a specific time - answering a public call  
Embrapii – effort is constant



# Market Search



Project to one company



Collaborative project

Example:

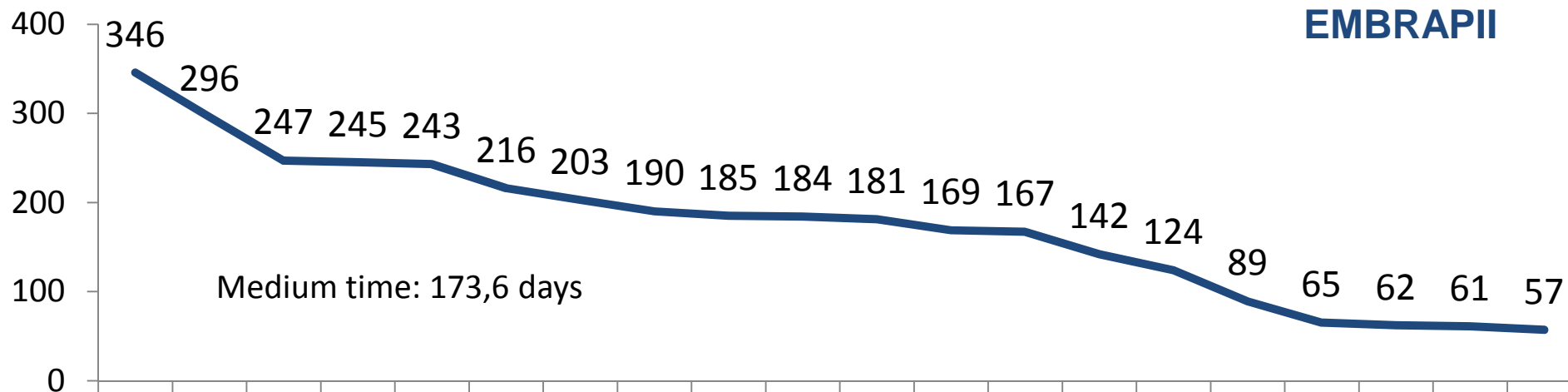




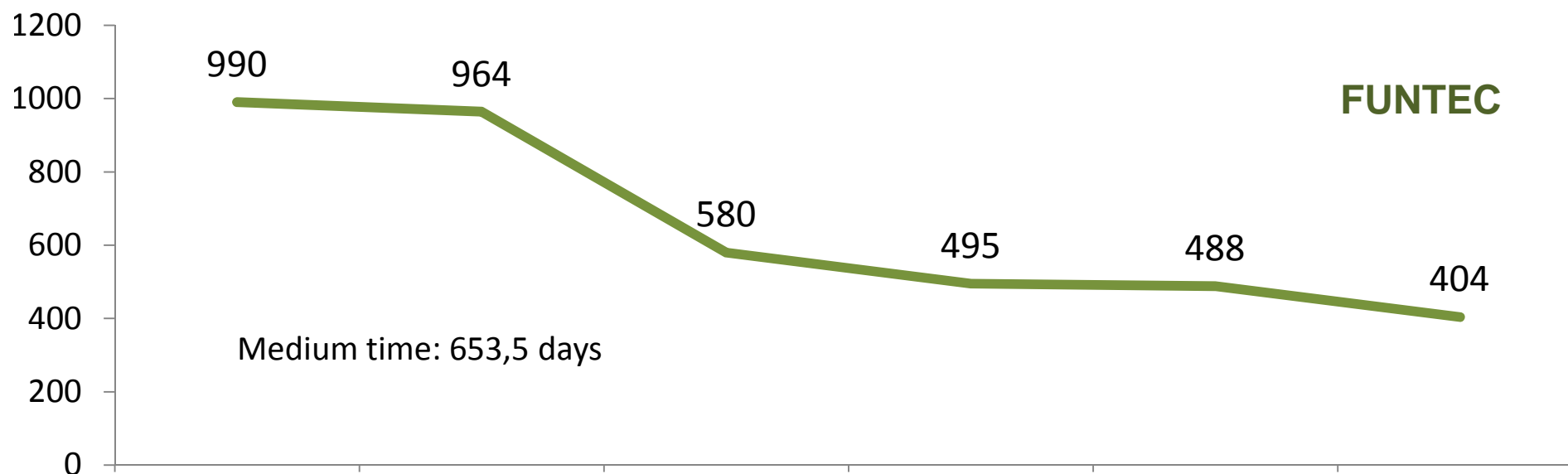
# Negotiation Process - Embrapii

*From proposal to contract*

**EMBRAPII**



**FUNTEC**







# Negotiation Process

*From proposal to contract*

## Embrapii

- Budget authorization by company
- Authorization of headquarter for multinational companies
- Intellectual property
- Number of partners involved in the project

## Funtec

- Scope's budget's must be authorized by BNDES
- Contract must be agreed between partners
- Intellectual property

Medium time: 173,6 days



# Negotiation Process - Embrapii

## *From proposal to contract*

- Intellectual property
  - Negotiation is based on the Innovation law
  - Patent ownership – divided between partners
  - Companies could explore the patent with exclusivity in the market
  - Extra remuneration of IST (royalties, success rate, etc) – negotiating case by case



Companies with an IP policy and open innovation process implemented the negotiation is faster than those without them



# EXECUTION

- Proximity between IPT and partner to
  - Expectations alignment
  - Company follow the intermediate results and re-plan if necessary
  - Build trust
- Structure to support researchers
  - Project Management Office:
    - To manage and re-plan to get it ready at the agreed time
  - Area responsible for the project's accountability:
    - Bank account
    - Invoices of purchases
    - Hours of researchers and equipment



Trust can be build but it depends on the both partners



# RESULTS

## Embrapii and Funtec

- Company's strategy concerned by the intellectual property is respect
  - Trade secret
  - Patent's protection
- Company has the right to explore the market with exclusivity
  - IPT receives extra remuneration
- IF the project arise technical and economical success – company must explore the market



## RESULTS - IP

Status	Technology	Deposit
Filed at INPI	Product	Patent application
Filed at INPI	Product and process	Patent application
Writing	Product and process	Patent application
Writing	Product and process	Patent application
Patent search.	Product and process	Patent application
Invention disclosure	Product	Patent application
Invention disclosure	Product	Patent application
Invention disclosure	Product and process	Patent application
Invention disclosure	Product	Patent application

- ✓ Projects ready - two
- ✓ Development of process to obtain nanoparticles



## RESULTS - IP



**BNDES**

Status	Technology	Deposit
Filed at INPI	Process and product	Patent application
Filed at INPI	Process	Patent application
Filed at INPI	Product	Patent application
Filed at INPI	Product	Patent application

45 new tests implemented in laboratories  
1 book published  
2 Ph.D and 8 M.Sc. concluded

# Lessons – Embrapii and Funtec

Before the partnership:

- Company must know the motives to establish the partnership
  - Technical aspect
  - Commercial aspect

Negotiation process

- Negotiation of IP
  - Case by case – a company and IPT analyse together the potencial market for the technology – in a open process

Project's development

- Execution
  - Partnership - IST and company discusses the project during the development



# Challenges – Embrapii and Funtec

Companies be comfortable with partnerships with ISTs – investing in R&D and doing open innovation

- Funtec
  - Time to get the contract
  - Flexibility to spend the money
  - Risk for the bank – it is safe to spend the money with well known operations, risk is already known
- Embrapii
  - Get to know by companies
  - Management and sale effort to reach the contract's goal



**THANKS!**

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