Linking Universities and R&D Institutions to the Public and Private Sector for Management and Promotion and Commercialization of IP Assets

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High-Level National Intellectual Property Policy Meeting

The role of innovation and creativity policies and strategies for technological capacity building, economic growth and development

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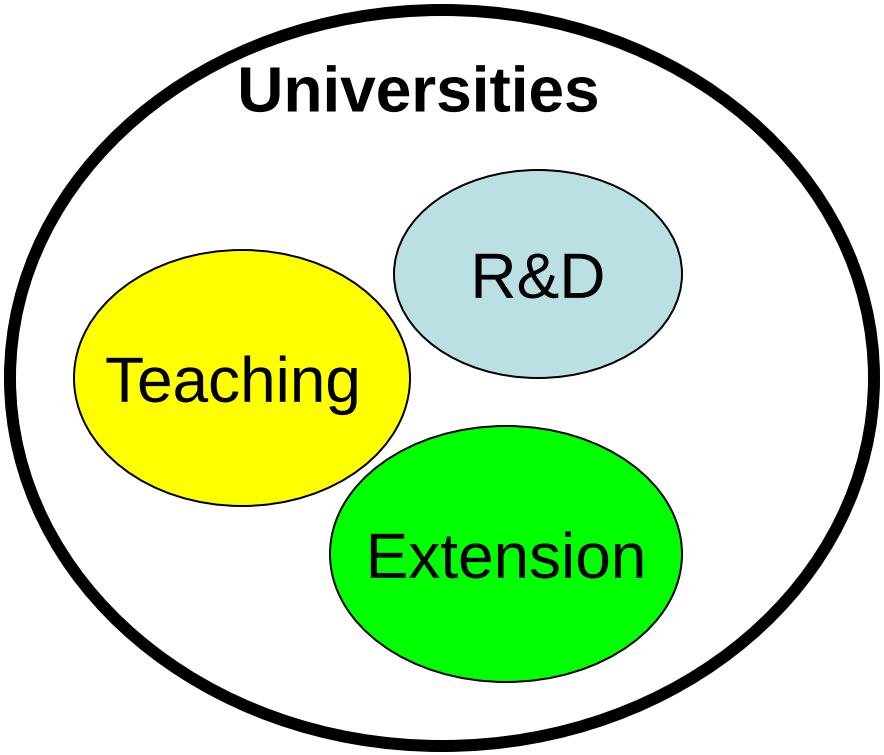
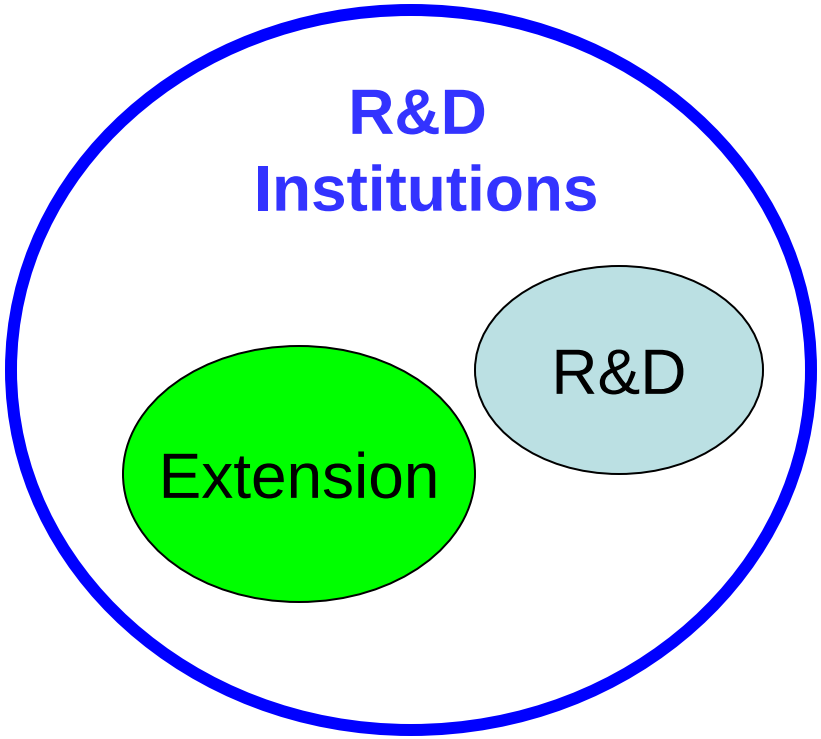
The content of the presentation

- Research for Development (R4D)
- National Experience
- Regional Experience
- International Perspective
- Conclusions

RESEARCH FOR DEVELOPMENT (R4D)

1. MANDATES OF UNIVERSITIES AND RESEARCH ORGANIZATIONS





- Capacity Building
- New knowledge
- Knowledge Transfer

Technological development

2. RESEARCH PRODUCTS

The direct product of research is knowledge. It can be in the form of

- New Technology
- New Product
- New Process
- Improvement in existing product, process or technology

3. UTLIZATION OF RESEARCH PRODUCTS

- Publication a traditional R&D output
- R&D is only useful if its products can lead to

1. Economic development
2. Industrialization
3. Job creation
4. Poverty Reduction

It is only through transfer of knowledge that a R&D Institution can become relevant to the society

4. RESEARCH INDICATORS

1. Outputs of R&D

1.Publications
2.Patent application
3.IP Assets generated
4.IP Assets Licensed

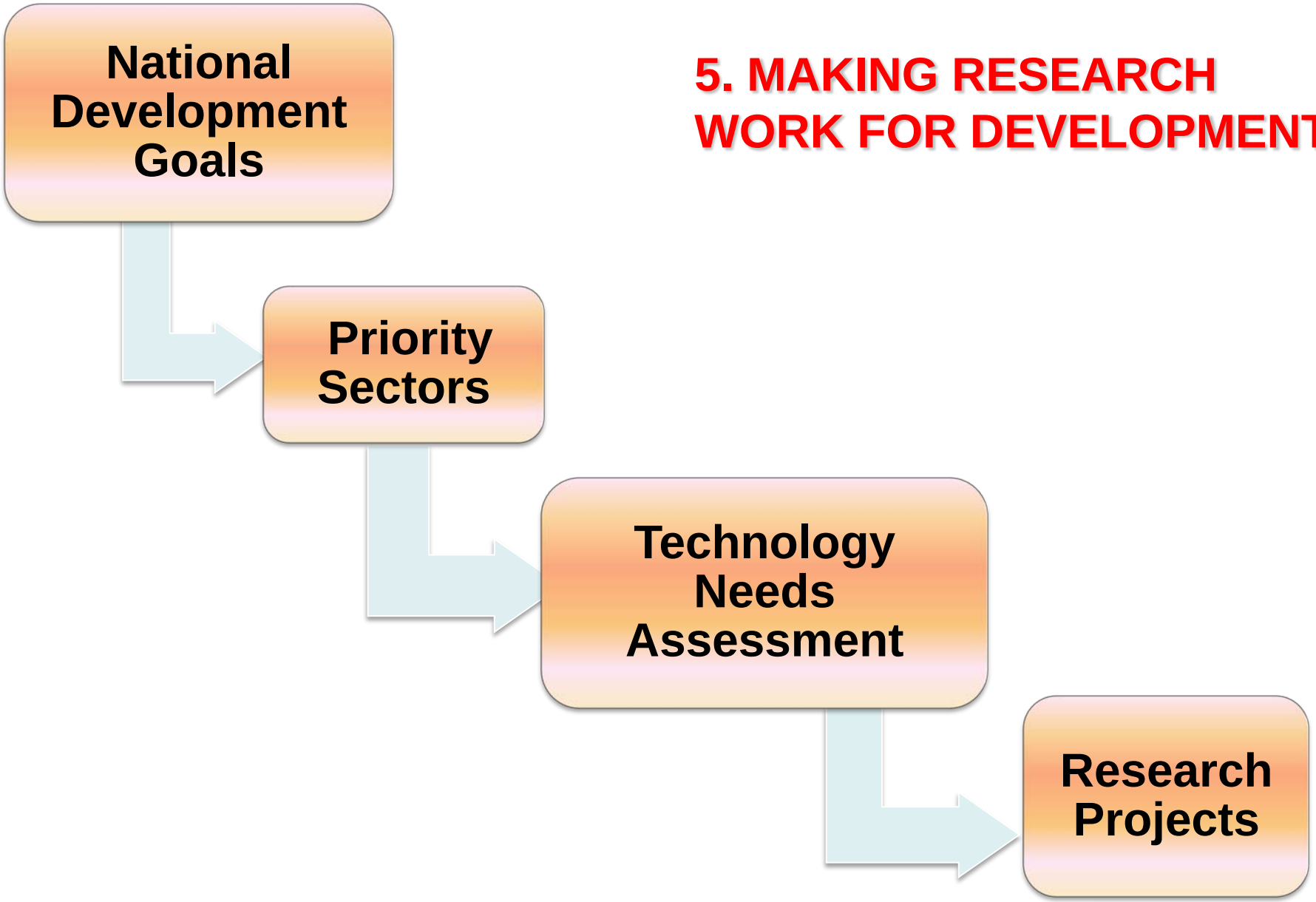
3. Impact of R&D

1.Contribution to GDP
2.Contribution to Poverty Reduction

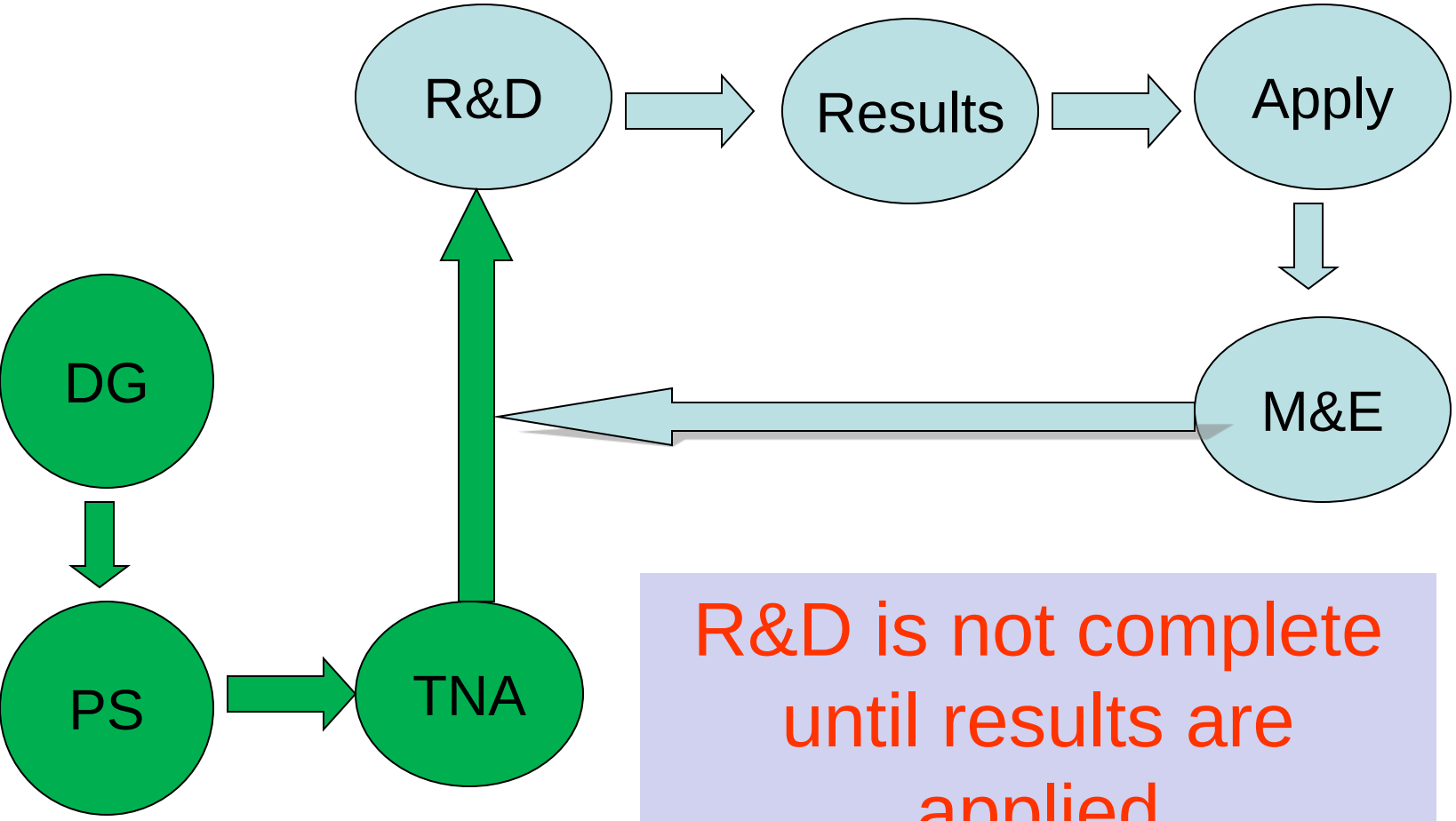
2. Outcomes of R&D

1.Income from Technology Licensing
2.No of Companies created directly based on the product of R&D
3. Increase in sales, tax revenues, profitability
4. Jobs created

5. MAKING RESEARCH WORK FOR DEVELOPMENT

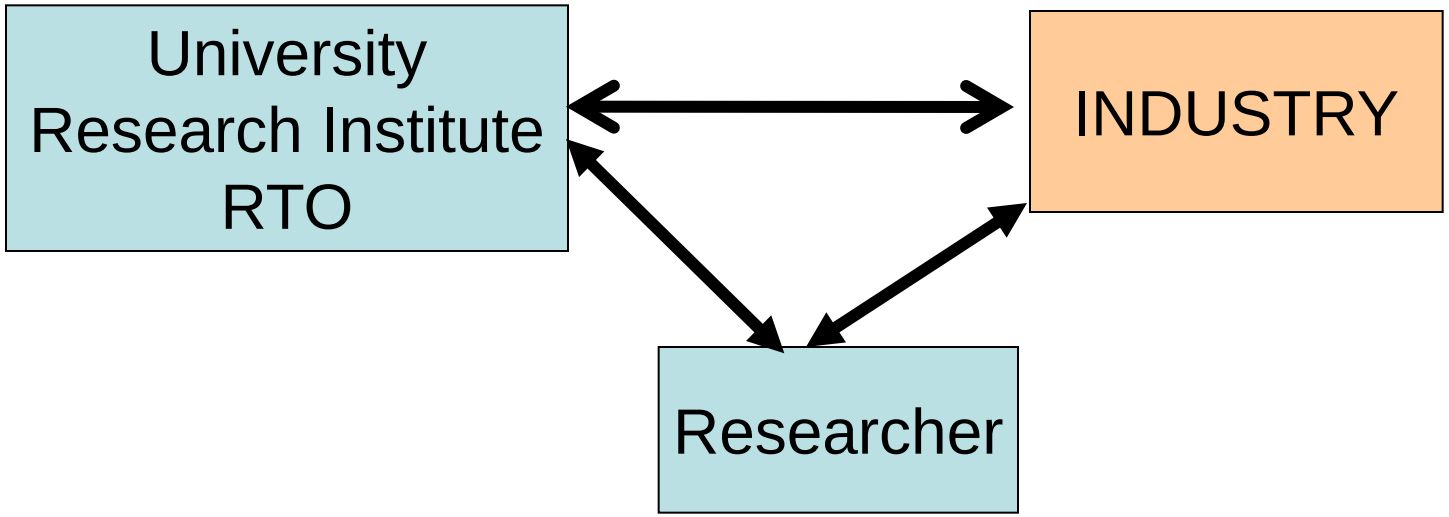


6. CHANGING RESEARCH MODEL



R&D is not complete until results are applied

7. CHANGING THE PARADIGM



- RTO plays the role of an Enterprise
- INDUSTRY seen as the customer
- Knowledge as the product
- Researcher as a marketer

R&D is NOT complete until results are utilised

8. POLICY INCENTIVES

Institutional IP Policy

- Ownership
- Benefit sharing
- Privately sponsored research
- National interest

Other Policies

- Technology Transfer policy
- University Industry Partnerships
- Funding for innovation and creativity

Support Structures

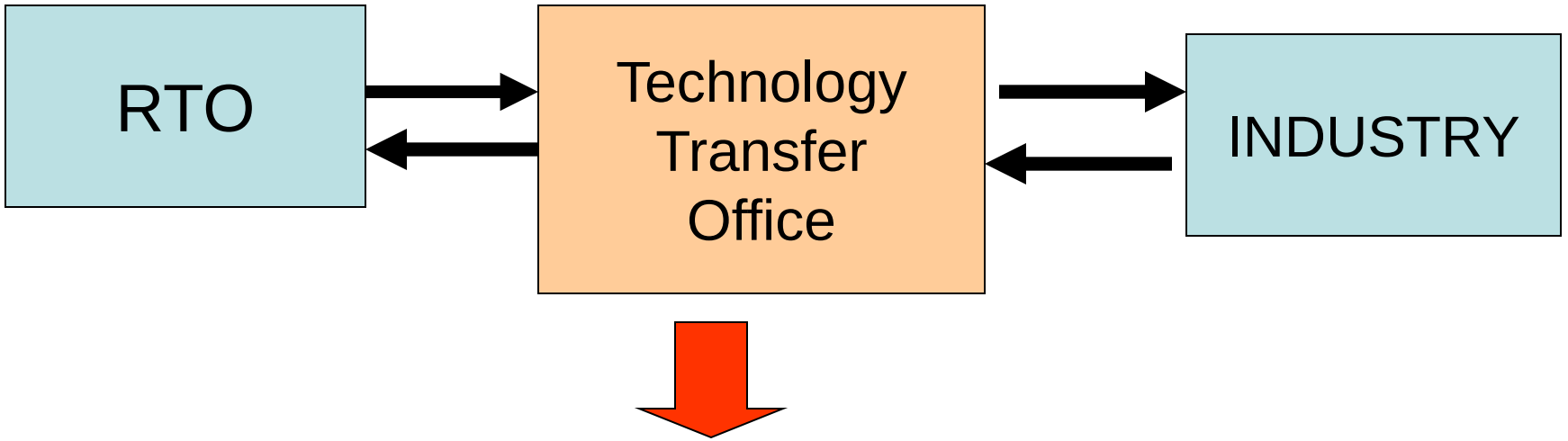
- Technology Transfer Office
- Companies
- Business incubation
- Science parks
- Spin-out/off companies

9. INSTITUTIONAL SUPPORT STRUCTURES

- Technology Transfer Office
- Business Incubation Services
- University Companies
- Industrial/Science Park

Understands RTO culture, speaks the language of industry and behaves like a private enterprise

10. TECHNOLOGY TRANSFER OFFICE

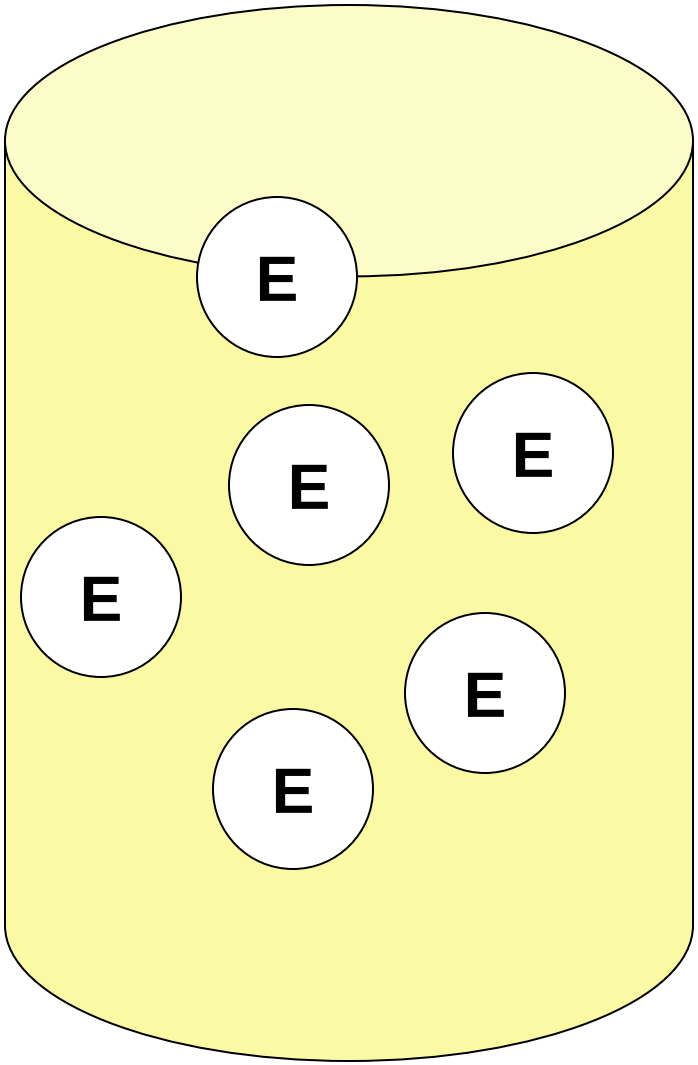


- Contract Research
- Protection of R&D Results
- Marketing of technology
- Technology Licensing

11. UNIVERSITY BASED COMAPNIES

- Contract Research
- Protection of R&D Results
- Marketing of technology
- Technology Licensing
- Pilot new technologies
- Establish new companies

12. BUSINESS INCUBATOR



1. Role of the Incubator
    1. Capacity building
    2. Technology and skill
    3. Marketing Access
    4. Business Information
    5. Supply pre-financing
    6. Negotiation with the government

2. Success factors
    1. Increases survival rates from 20 to 80 %

NATIONAL EXPERIENCE

PROGRESS IN KENYA SINCE 2004

- 5 public universities have IP policies
- 3 Research organizations have IP Policies
- 3 Universities have technology transfer offices or companies
- 3 Research Organizations have technology transfer office
- There is a Science, Technology and Innovation Policy
- National Commercialization Agency is envisaged
- Innovation Funding has been put in place
- There are success commercialization stories

REGIONAL EXPERIENCE

SUMMARY OF REGIONAL PROGRESS (MIP)

- Linkages with industries strengthening
- Demand driven research
- Focus on local problems
- IP Policies
- Technology Transfer Offices
- University companies
- Business incubation
- Technology/science/ict parks

EXAMPLES OF SUCCESSS STORIES FROM ELSEWHERE

1. Chalmers University in Sweden has created 240 companies from its products of R&D during 30 years from Its Technology Park
2. National University of Singapore has licensed 127 technologies
3. MIT in USA spins out 20 new high tech companies every year
4. Since 1980, US Universities under has generated 3500 companies

CONCLUSIONS

- Science, Technology and Innovation can drive national development
- There is need to formulate STI policies and strategies that respond to the development needs of a country
- Policy and support structures are required
- Policy makers should support policies and provide resources to strengthen business linkages between R&D institutions and the society