

# Technology Transfer, Academic and Industry Cooperations

Jake Micallef PhD MBA  
COO ValiRx plc  
Visiting lecturer Simfonec

[Jake.micallef@valirx.com](mailto:Jake.micallef@valirx.com)



# What do they want?

## Universities

- ◆ Money to fund research and teaching
- ◆ Academic freedom

## Industry

- ◆ Growing markets
- ◆ Growing industry sector
- ◆ Finance
- ◆ Cheap services
- ◆ New opportunities

## Government

- ◆ Growing economy
- ◆ exports
- ◆ Jobs
- ◆ Foreign direct investment
- ◆ More tax
- ◆ Stability & Control  
(+ political agenda)

# What is needed for cooperation?

## Universities

### Establish Innovation culture

- ◆ Strong research base
- ◆ Motivated academics
- ◆ Enterprise training for scientists
- ◆ Recognise academic commercial success
- ◆ Professionals with commercial experience
- ◆ Good communications with academics & industry

## Industry

### Collaborate and outsource

- ◆ Communication skills with academics
- ◆ Use academic technical expertise on advisory boards etc.
- ◆ Pay realistic prices
- ◆ Willingness to partner long term – not exploit short term

## Government

### National strategy and funding

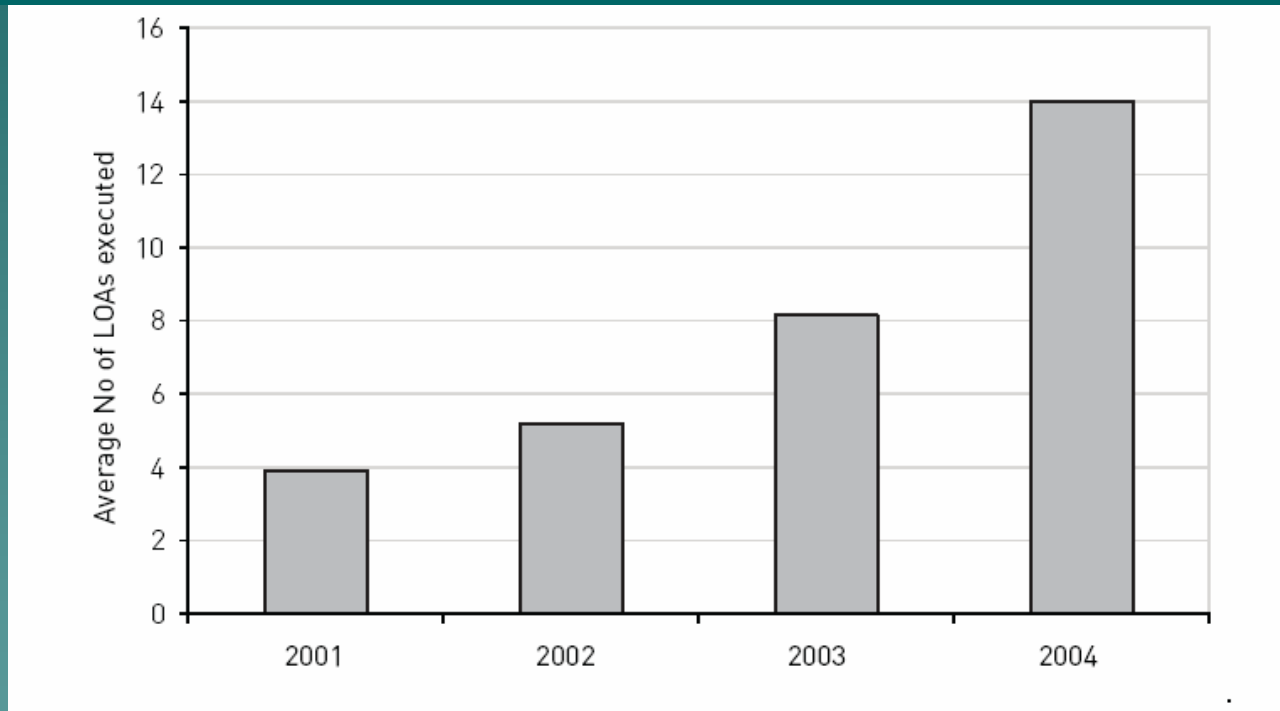
- ◆ Recognition of need
- ◆ National strategy
- ◆ Funding mechanism for enterprise training and for new companies

# UK 2004

- ◆ Survey of 106 institutions
- ◆ 1019 university business professionals (median 5)
- ◆ 2871 new inventions disclosed (median 0)
- ◆ 885 new patent applications at a cost of £12M (median 4)
- ◆ 569 patents granted
- ◆ £40M licensing income (median 0, 60% <£50K)
- ◆ 229 new spin-out companies

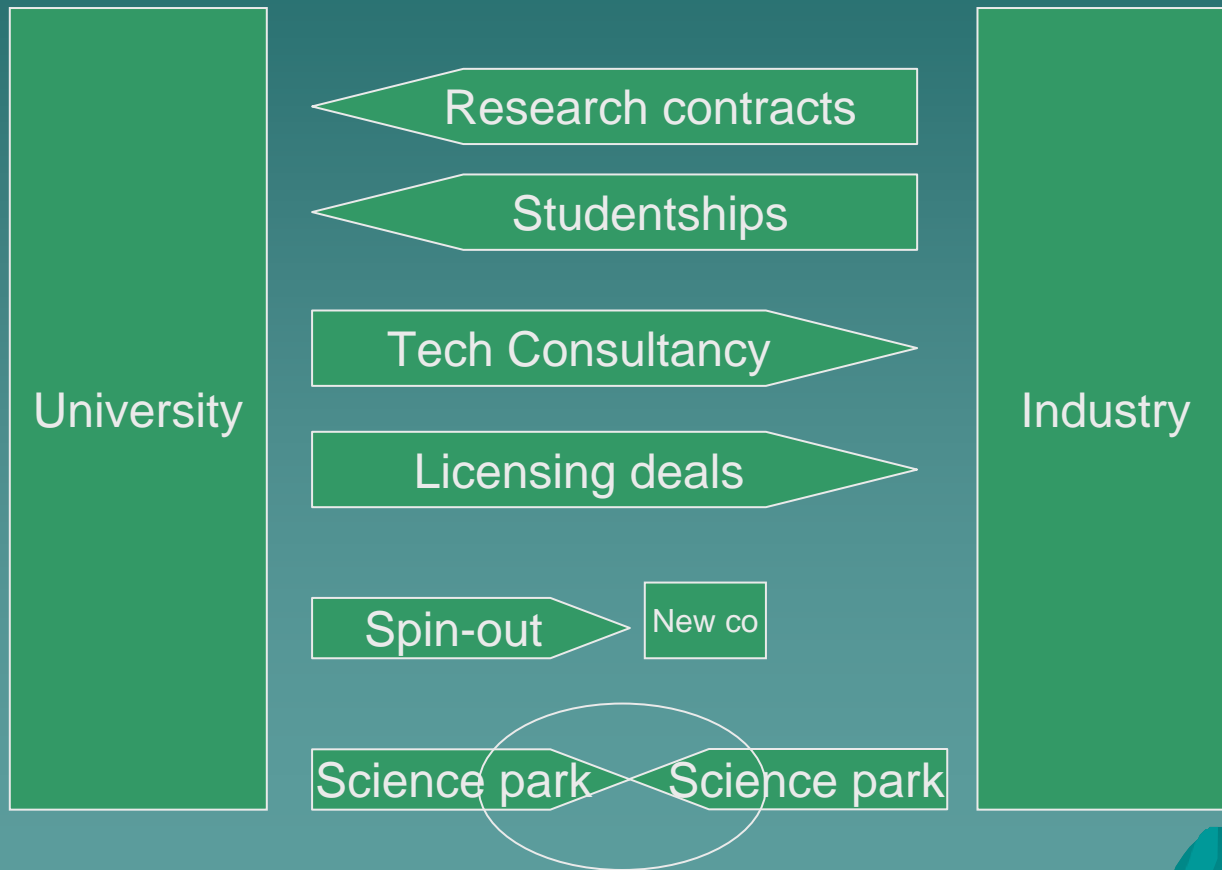
# But this is relatively recent.....

## Growth in UK University license deals



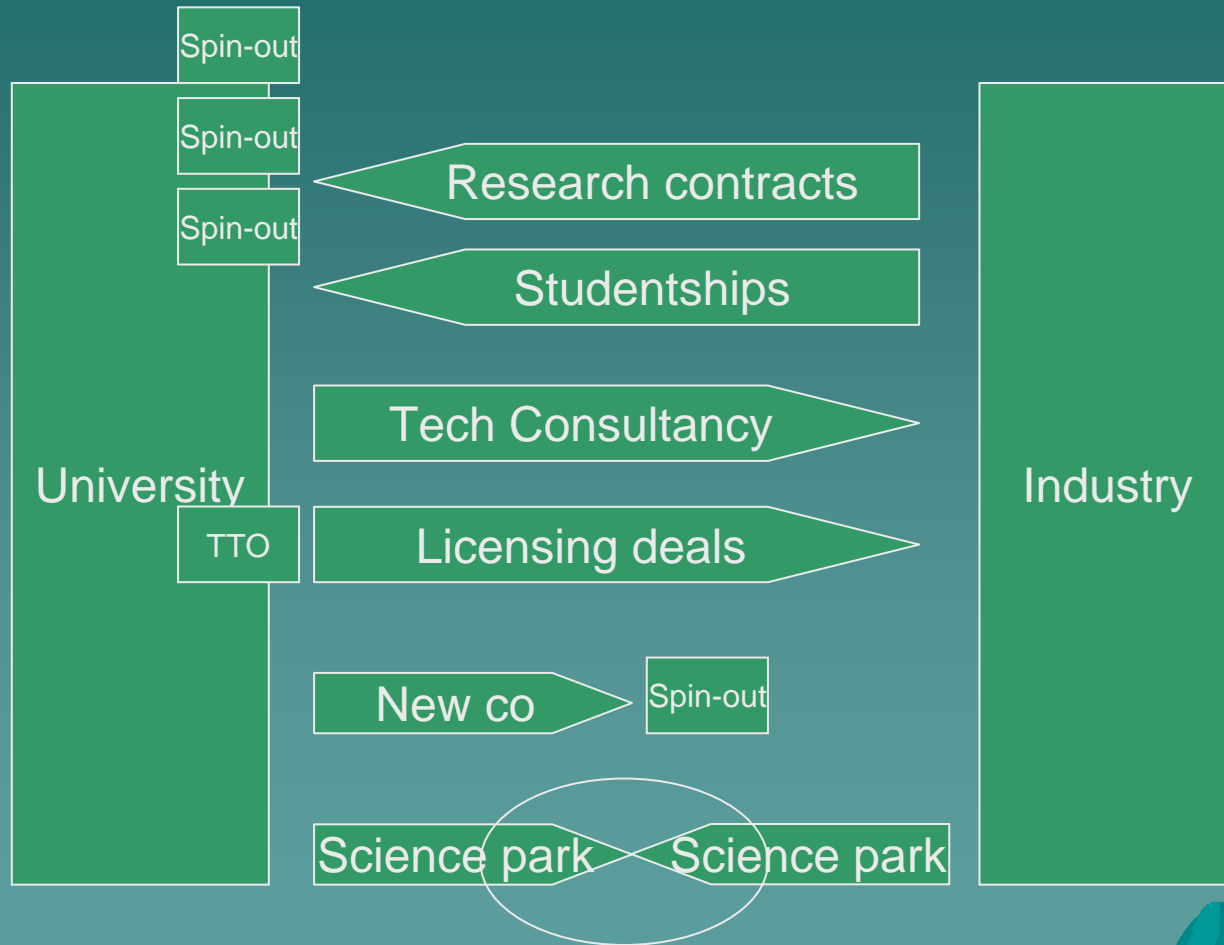
.....and not uniform – eg Northern Ireland

# University / Industry cooperations



# University / Industry cooperations

Biotechnology service companies

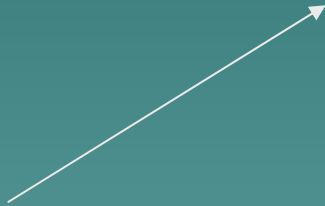


# Pharma Company





# Pharma Company

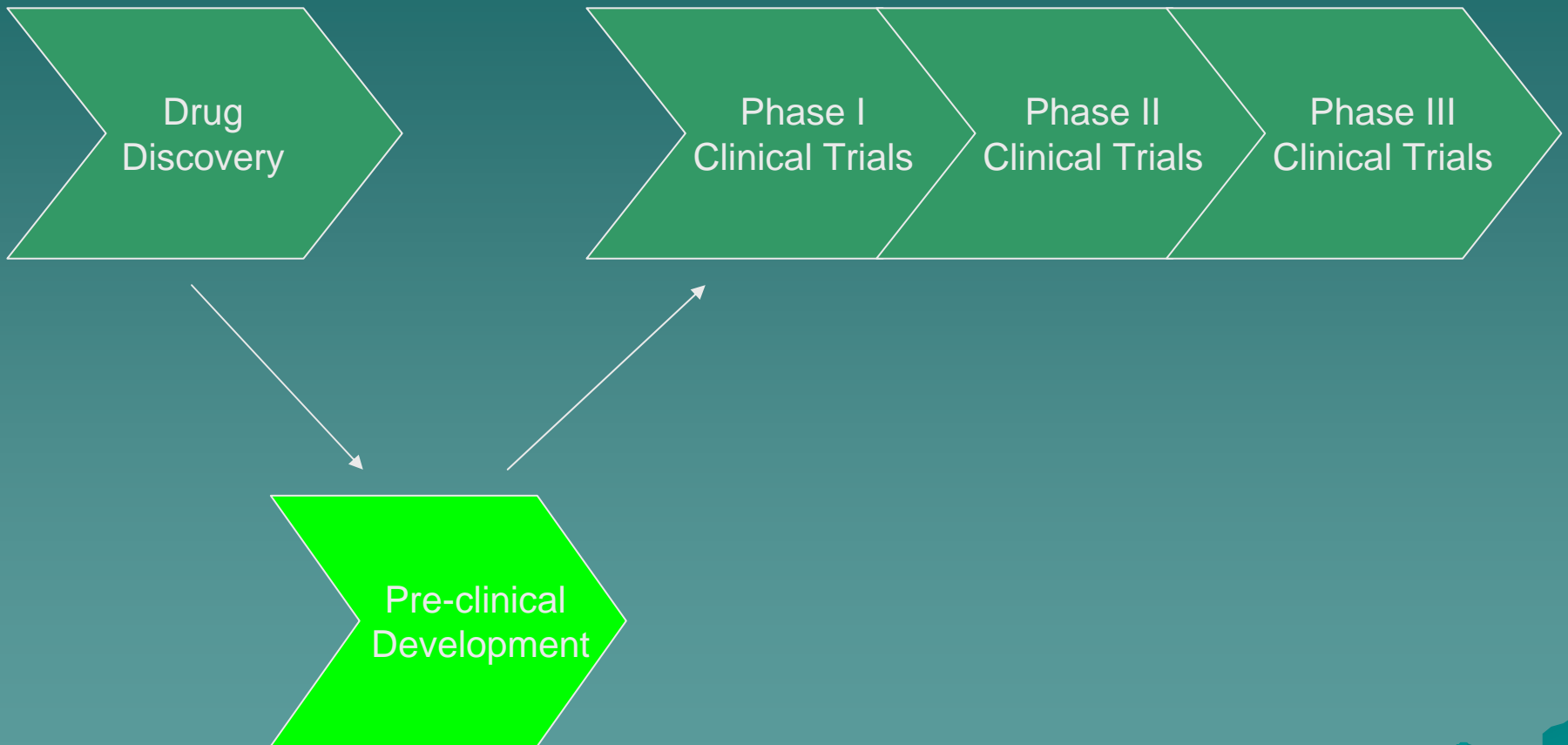


University or  
Biotech

**Few Turkish R&D based pharmaceutical companies.....**

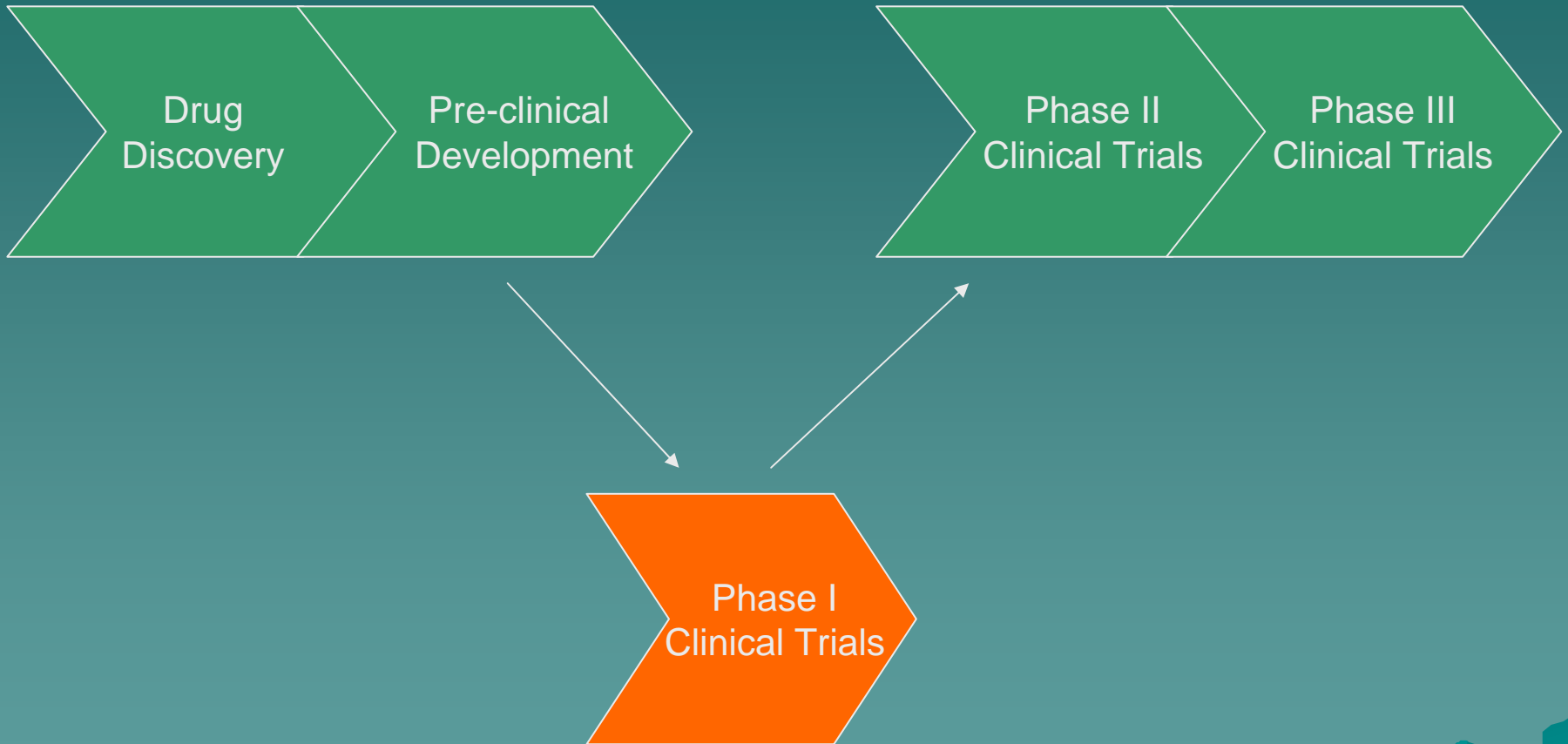
**...but can build a biotech sector on strengths of universities**

# Pharma Company



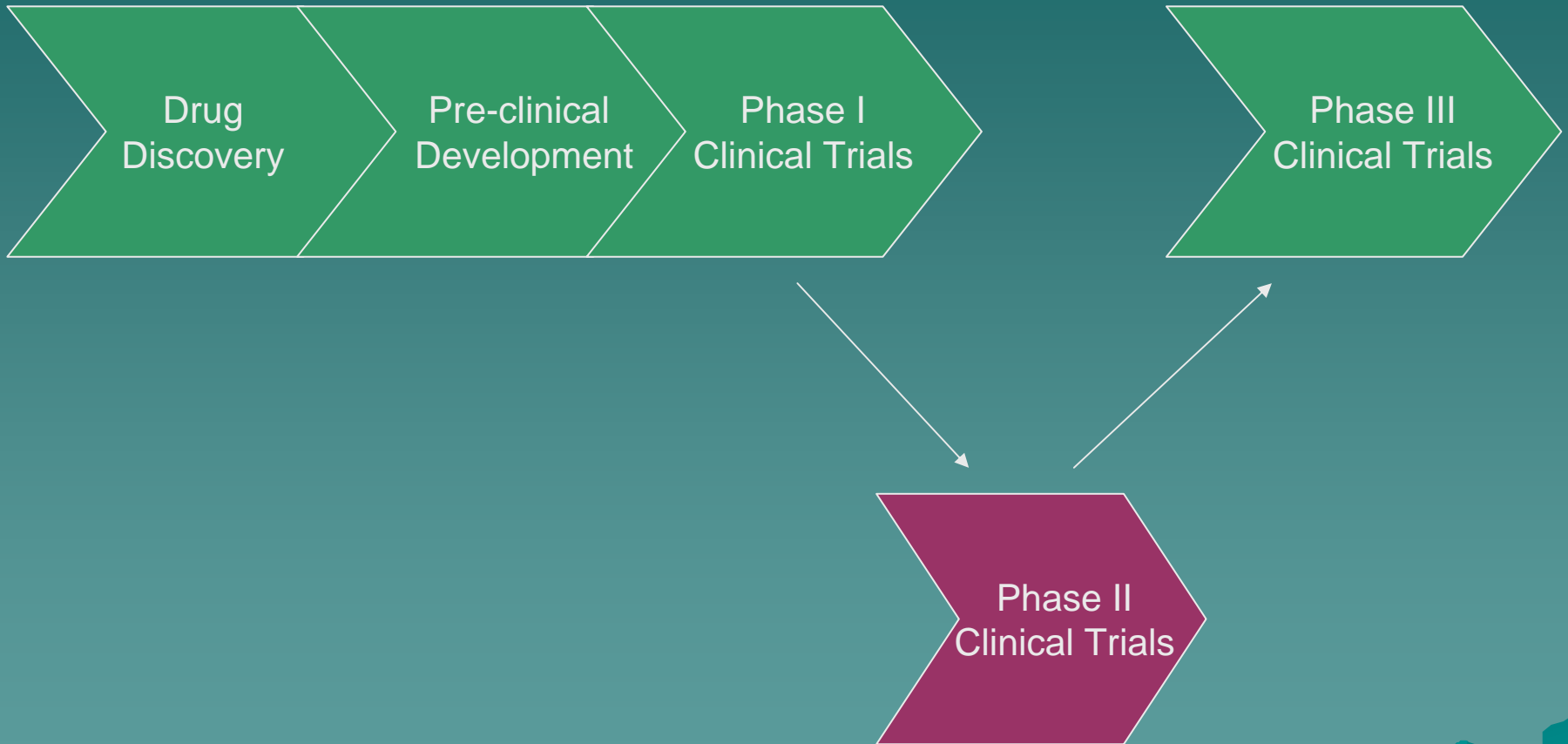
University or  
Biotech

# Pharma Company



University or  
Biotech

# Pharma Company



University or  
Biotech

# Pharma Company



Biotech A

Biotech B

Biotech C

Biotech D

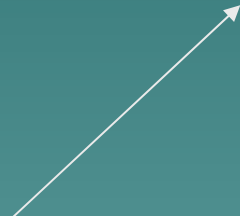
University A

University B

University C

University D

# Pharma Company



Biotech A

Biotech B

Biotech C

Biotech D

Biotech E

University A

University B

University C

University D

University



# UK university biotech service companies

- ◆ Biobanks
- ◆ Diagnostic service and product companies
- ◆ Pre-clinical research companies
  - In vitro disease models
  - In vivo disease models
  - Xenograft models
  - Assay development
  - Use of/access to specialist equipment
- ◆ Clinical trials companies
- ◆ Bioinformatics companies
- ◆ Specialist manufacturers (peptides, antibodies etc)
- ◆ Specialist chemistry companies
- ◆ Therapeutic product companies

# UK Government strategy

- ◆ Fund Technology Transfer in universities
- ◆ Fund enterprise training for scientists
- ◆ Provide “proof-of-concept” funding for promising university projects
- ◆ Bio-incubators part funded by regions
- ◆ Rest is left to market



# European strategy

- ◆ Fund Technology Transfer in universities
- ◆ Build technology parks with a mix of big companies, biotechs and universities + space for new small companies
- ◆ Provide large amounts of soft funding to encourage FDI, JVs, university-industry collaboration and new companies to build critical mass  
(regional funding, state backed venture funders, FP7 etc.)

# Thank you

