

# EPAC'04 Technology Transfer and Industry

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## *Methods for Successful Technology Transfer in Physics*

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- Why technology transfer?
- The theory
  - 4 resources
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- Conclusions



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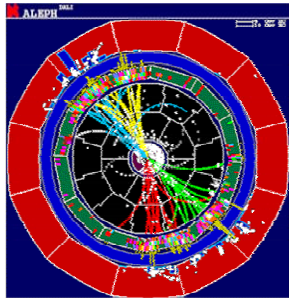
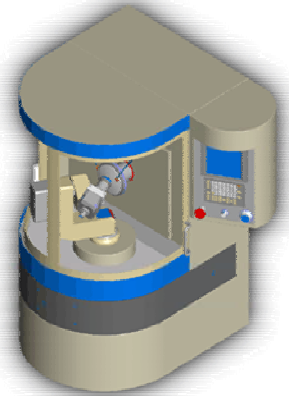
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## *Why Technology Transfer?*

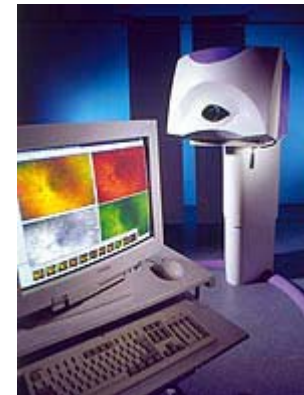
- Benefit for industry has become a condition of funding
- We have a role to benefit society through multidisciplinary academic and industry partnerships
- We need industry to build parts of our infrastructure



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**Technology**



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## *Goals for Technology Transfer*

- Spread technologies to broader market areas
  - Academic - Industry
  - e.g. healthcare, aerospace, instrumentation
- Encourage collaborative multidisciplinary research
  - Academic - Academic
- Support relationships with companies supplying our community



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## *4 Resources*

Skills

Intellectual  
Property

Facilities

Money



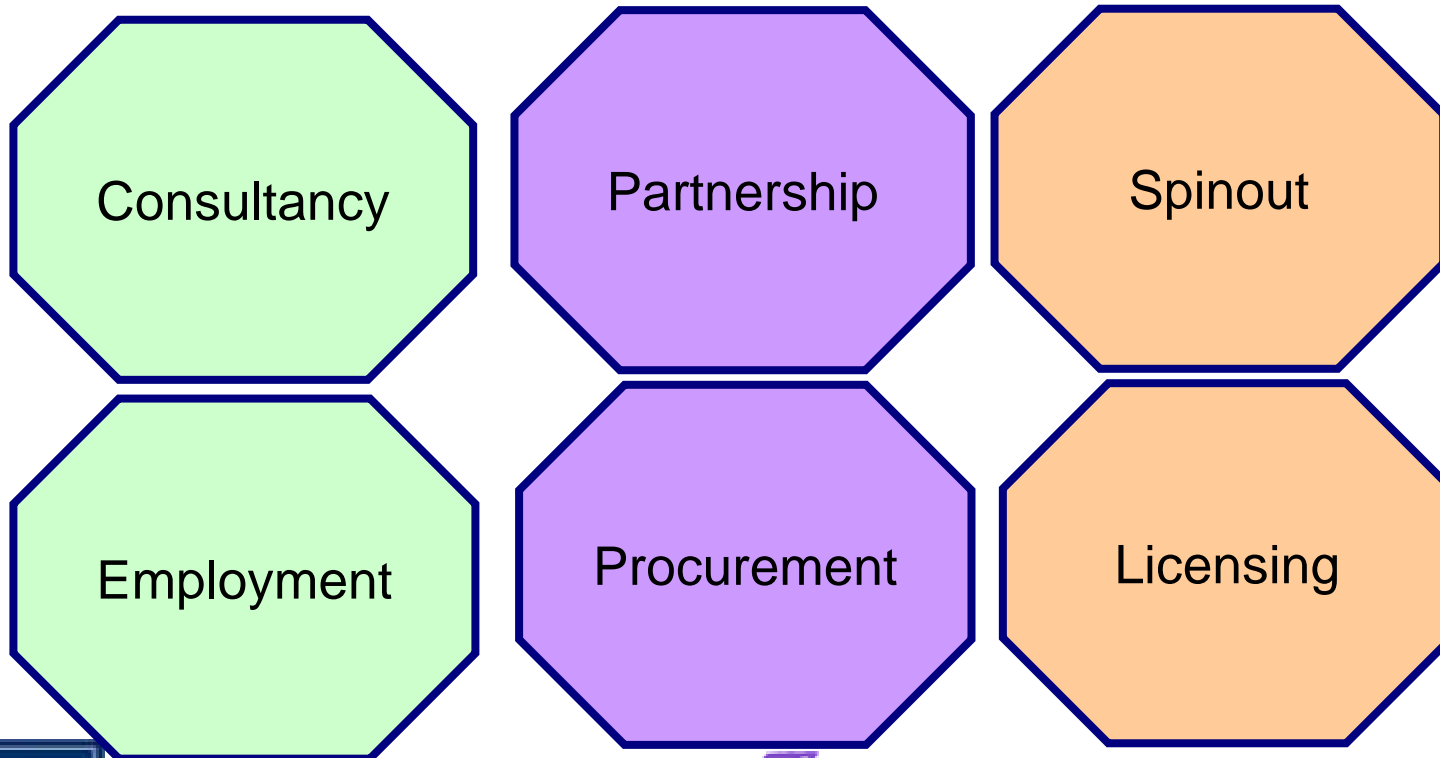
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## *6 Vectors*



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## *6 Vectors use the 4 Resources*

- Consultancy = money for skills (transitory)
- Employment = money for skills (permanent)
- Procurement = money for goods and services, builds skills and capabilities
- Partnership = skills, facilities, Intellectual Property and money from all parties
- Licensing = Intellectual Property for money
- Spinout = transfer of skills, facilities and Intellectual Property to a new entity





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## *5 Requirements for Commercial Success*

- The credibility of a technology proposition is said to depend upon five requirements:
  - A global, growing market
  - The potential of the technology to disrupt the market
  - A strong management team
  - Strong Intellectual Property Rights
  - A clear business model through which revenue and profit can be generated



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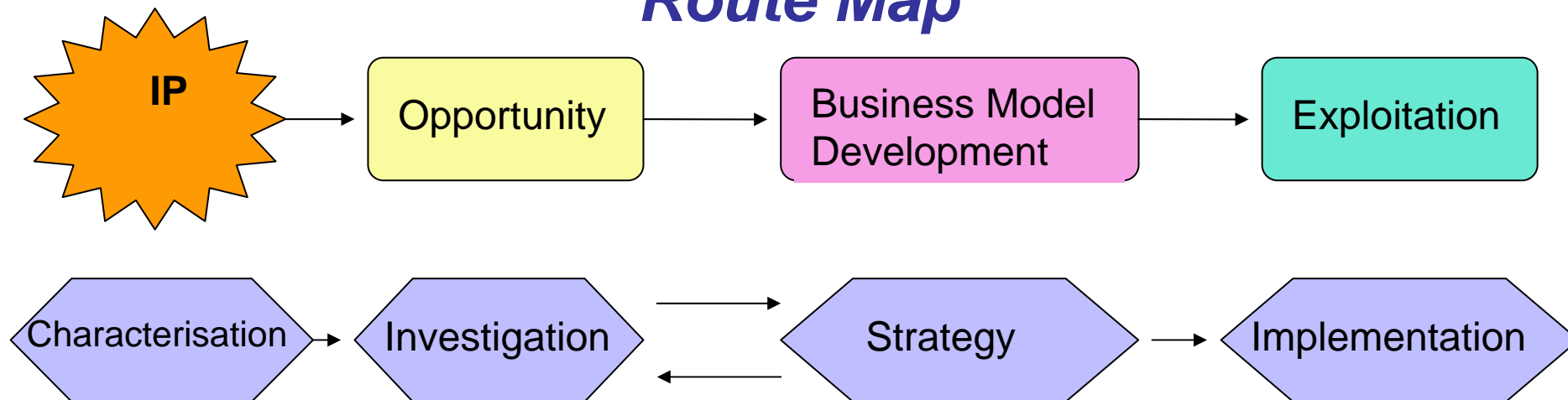
## *4 Golden Rules for Partnership*

- People are the key
  - Build relationships and trust
  - Respect differing motivations
- Focus on the project needs, not the funding source
- Ensure that all partners have strong motivation
- Project management is essential



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## *Route Map*



- Identify and assess potential markets, competitors, substitutes
- Assess IP status and technology / product development route
- Develop strategy and select business model
- Secure resources for market, technology and IP protection
- Implement exploitation program

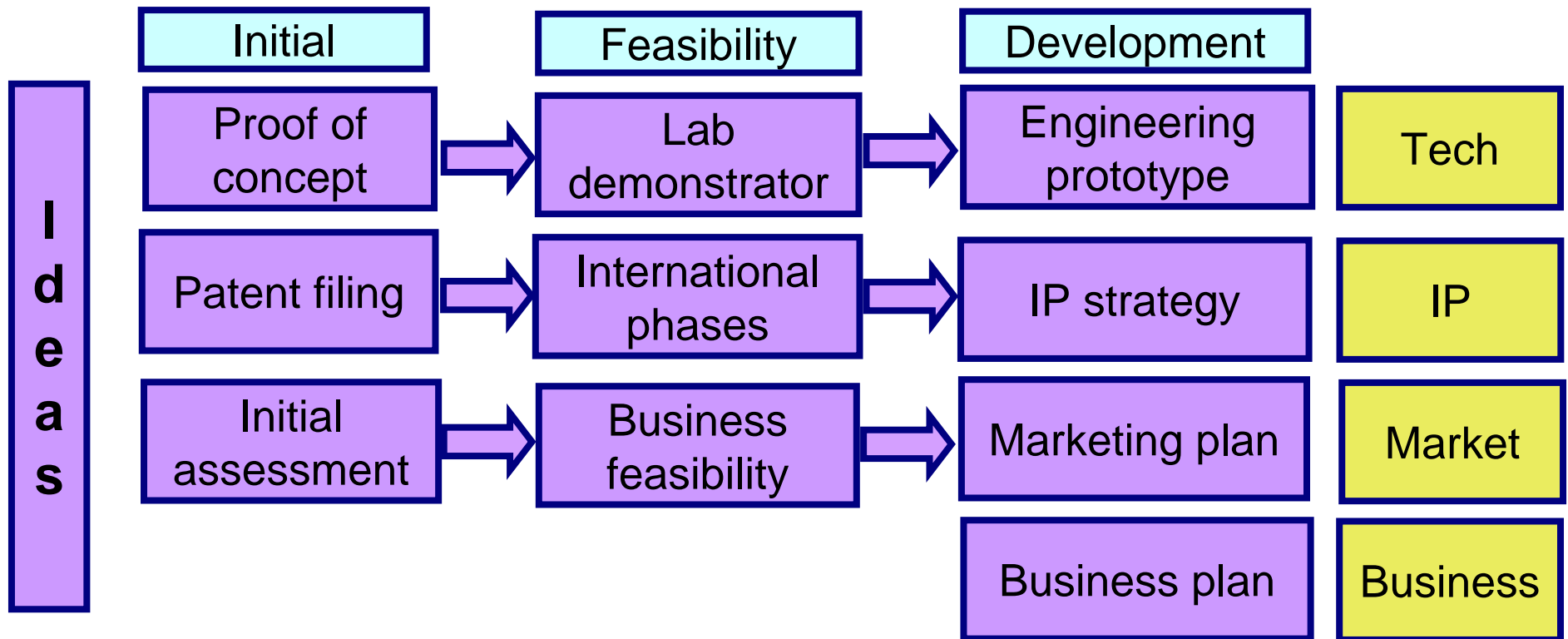


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## *Route map*



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## *Case Studies*

- Superconducting Gravity Gradiometer
  - Space Science to Exploration Industry - Spinout
- ChemicalVias
  - Particle Physics to Electronics Industry – Licence
- Openlab
  - Particle Physics to IT Industry – Partnership
- Small Field Imaging
  - Particle Physics detectors to cancer treatment – Partnership
- Retinopathy Screening
  - Astronomical image analysis to diabetes diagnosis - Partnership



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*Thank you for listening*

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