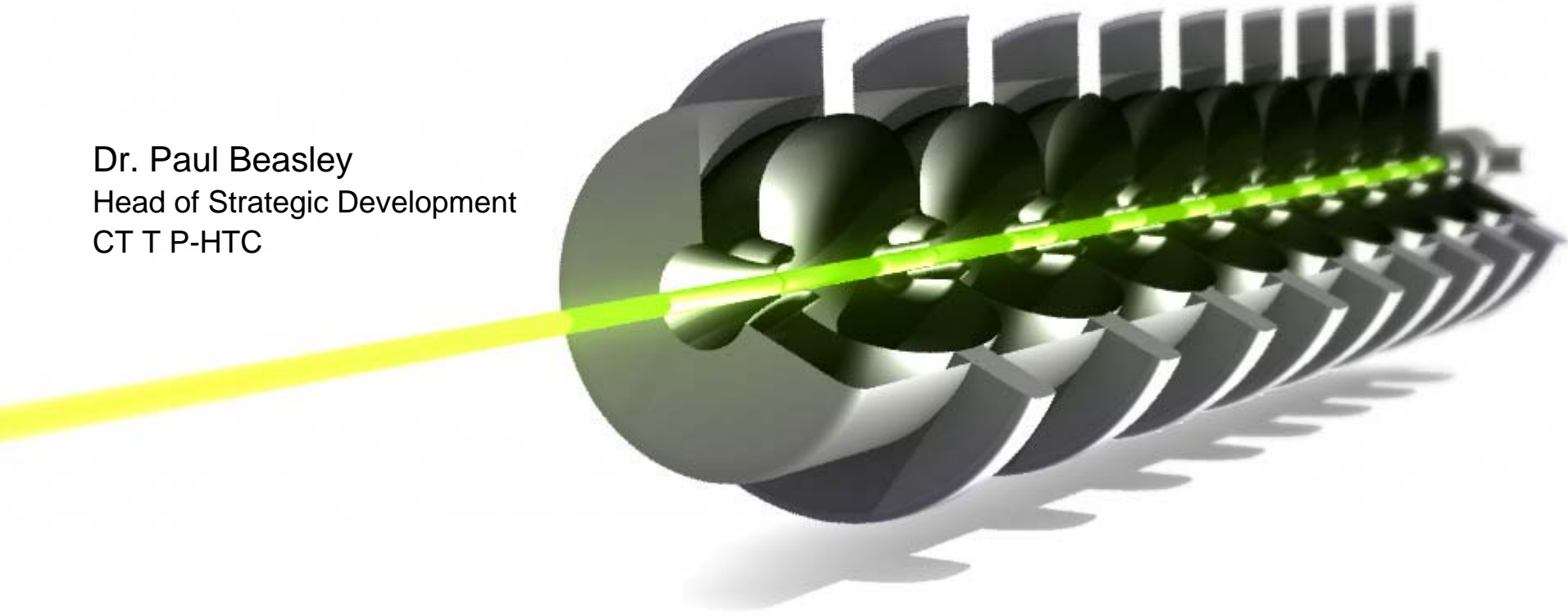


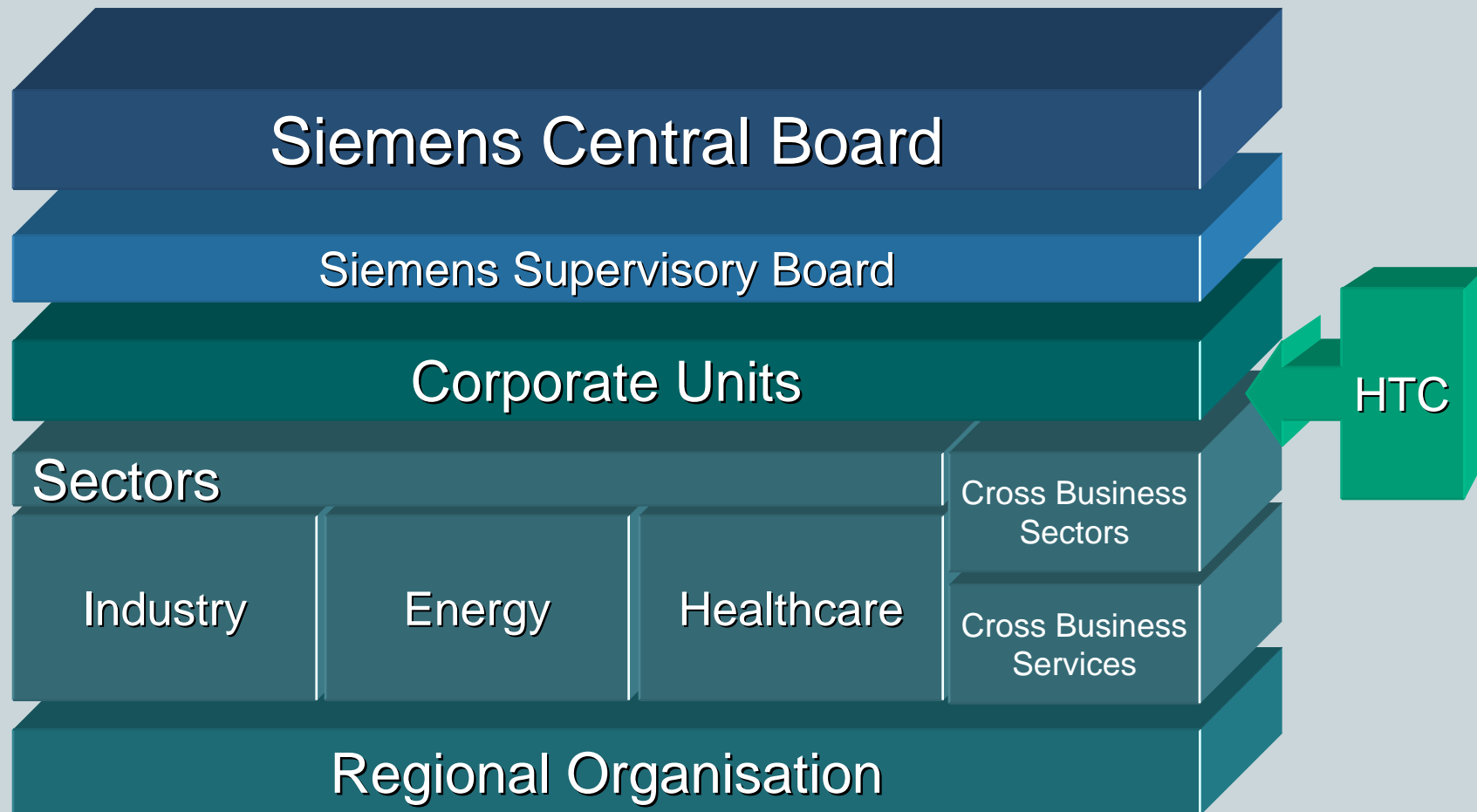
Siemens Technology & Concepts

- Novel Particle Accelerators

Dr. Paul Beasley
Head of Strategic Development
CT T P-HTC



Top Level Siemens Organisation



Siemens Technologies and Concepts



Mozartstrasse 57
91052 **Erlangen**



23-38 Hythe Bridge St
Oxford, OX1 2EP



Roke Manor
Romsey, SO51 0ZN



M.I.T.
36 Vassar St
MA 02139, **Boston**

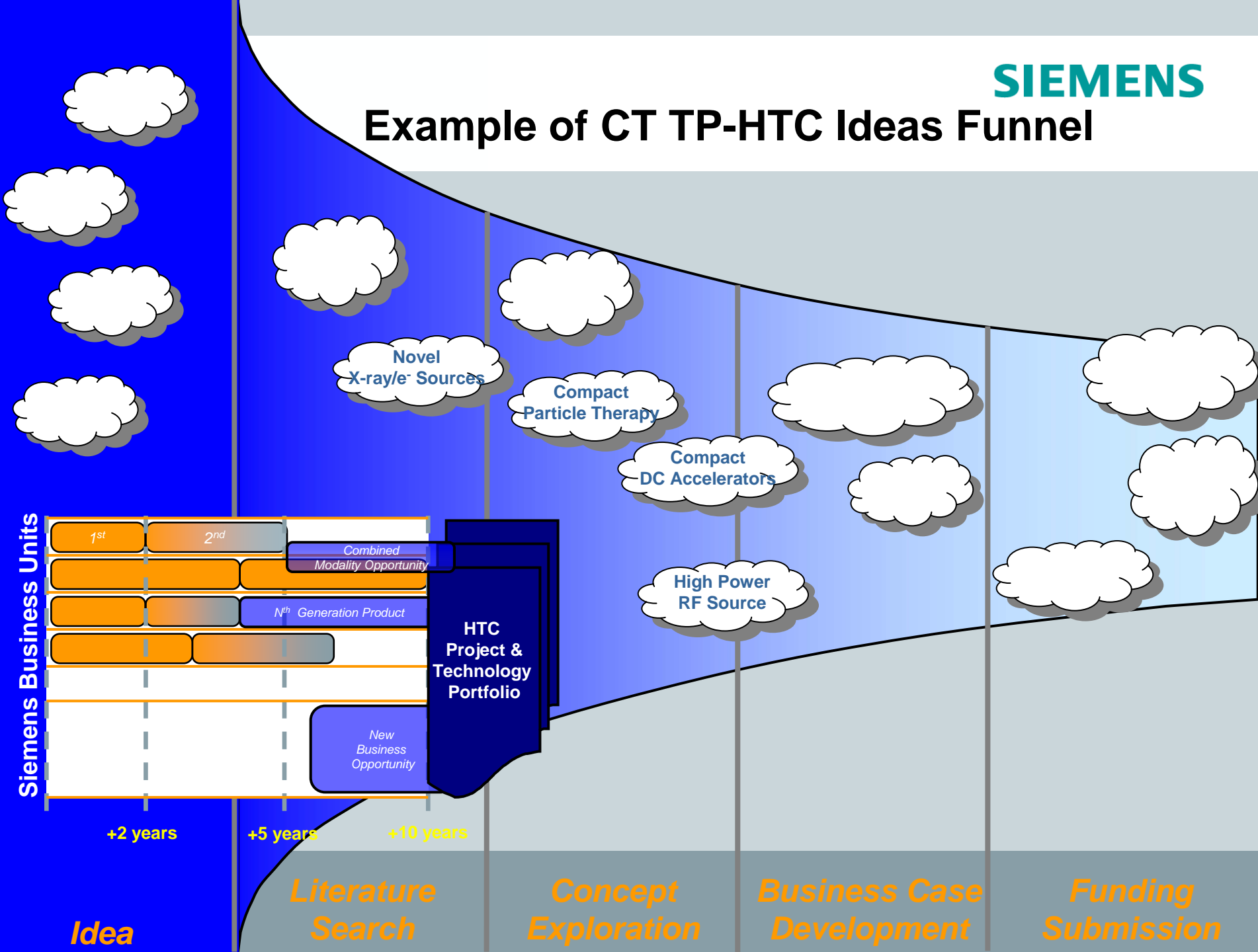


M.G.H.
55 Fruit Street
MA 02114 **Boston**

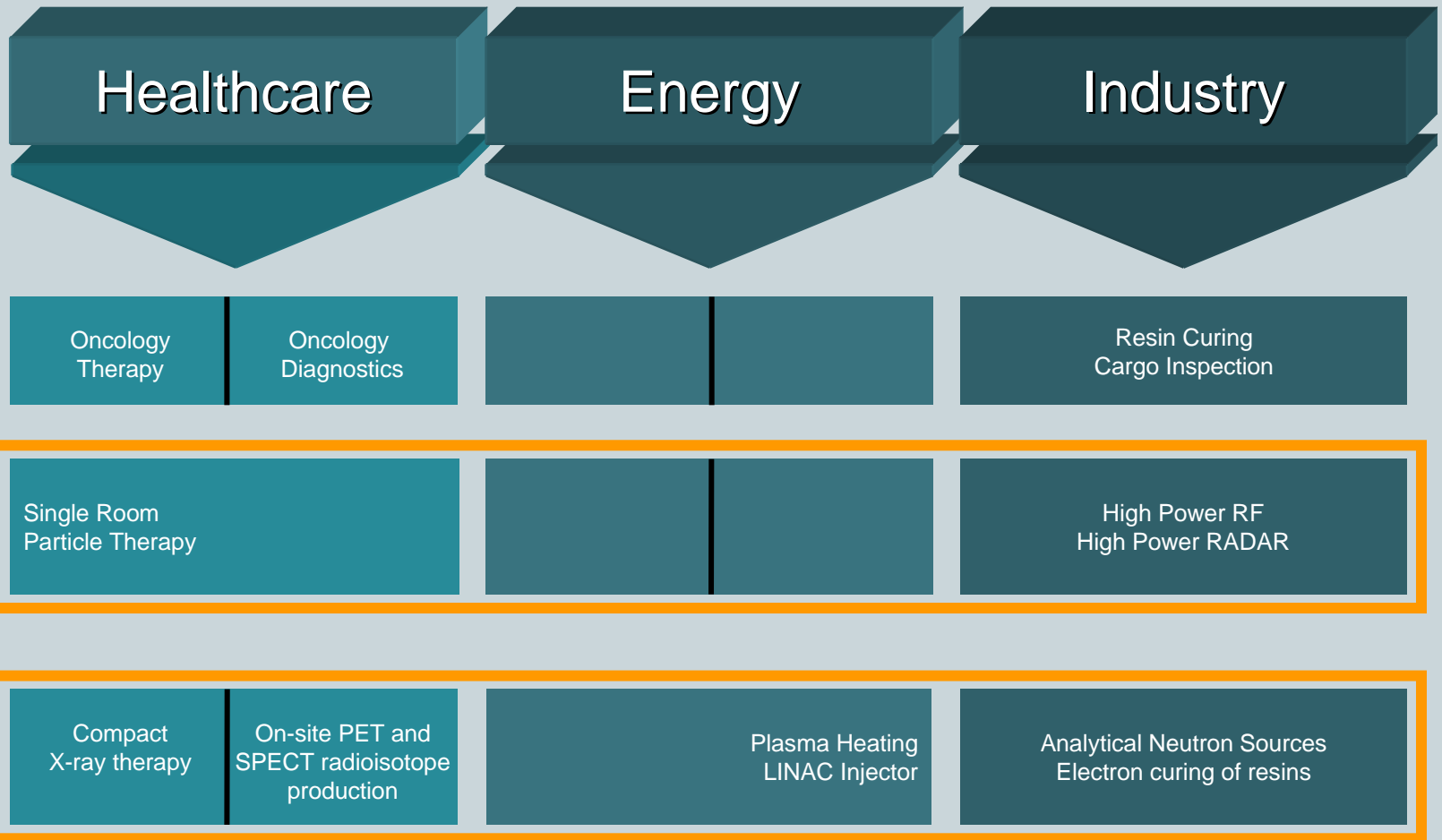
To identify and develop new business opportunities for Siemens

- To de-risk new and emerging technologies before handing over to business units
- To develop next generation product concepts
- To develop relationships with key universities and organisations to support technology development
- To generate intellectual property

Example of CT TP-HTC Ideas Funnel



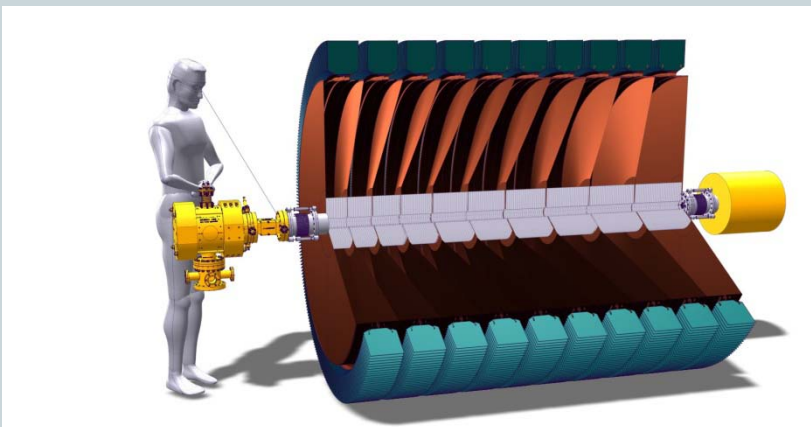
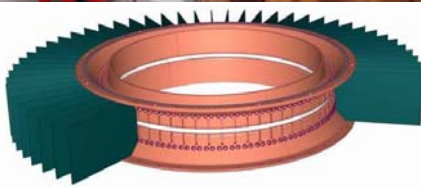
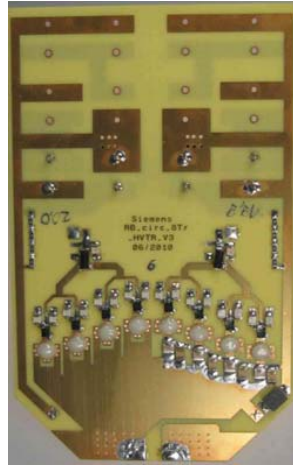
Novel Particle Accelerators



RELIA Technology

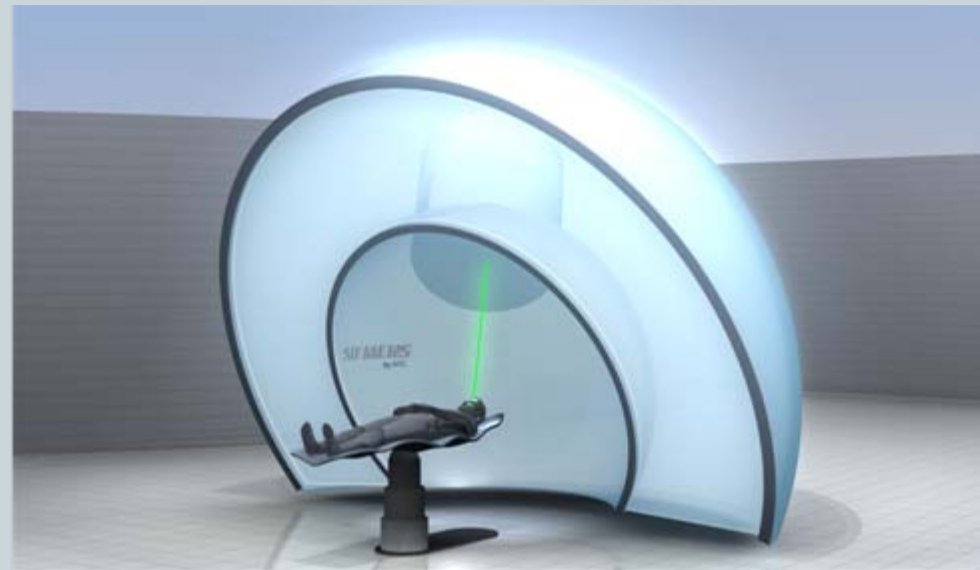
- Application Example

SIEMENS



Compact High Power Accelerator

- Versatile, Energy efficient, minimal total cost of ownership
- Based on innovative Solid State Direct Drive™ technology
- 50+ system patents so far

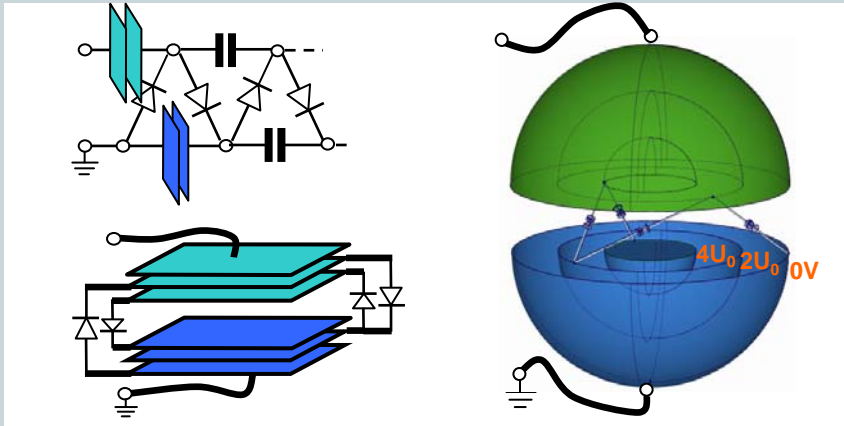


© Siemens AG 2010. All rights reserved.
Sector Healthcare, Technology and Concepts

ONIAC Technology

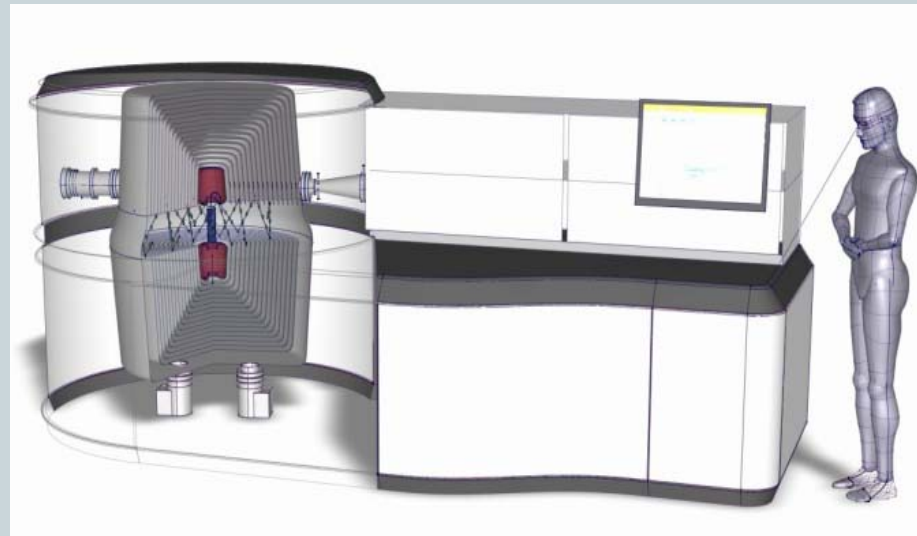
- Application Example

SIEMENS



Compact DC Accelerator

- Energy efficient, minimal total cost of ownership
- “Variant of the original Cockcroft- Walton cascade”
- 15+ system patents so far



Summary

Increasing number of opportunities for the application of particle accelerators in Healthcare, Energy, Industry and Security etc.

- *To enable this, it is key to change the current public perception about this technology.*
 - *i.e. Large, expensive, complex, research equipment*
 - *e.g. CERN, ITER, Diamond*

- *Siemens focus is to identify and develop technologies that:*
 1. *Make them Cheaper*
 2. *Make them Smaller*
 3. *Make them Simpler*
 4. *Make them Reliable!!!*

The Heidelberg Ion Therapy Center

