



Welcoming Covidien to Medtronic

Creating
Meaningful
Change
Together

Medtronic

A New Model for
Medical Entrepreneurship

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Our journey to pursue our Mission

- To contribute to human welfare by application of biomedical engineering in the research, design, manufacture, and sale of instruments or appliances that **alleviate pain, restore health, and extend life.**
- To **direct our growth** in the areas of biomedical engineering...
- To strive without reserve for the **greatest possible reliability...**
- To make a **fair profit...**
- To recognize the **personal worth** of employees...
- To maintain **good citizenship...**

Making Business Solutions Human Solutions

Medtronic's three key strategic priorities



Therapy Innovation

Introducing and delivering meaningful therapies and procedures



Globalization

Addressing the inequities in healthcare access globally



Economic Value

Helping lead the creation of value-based healthcare solutions

Serving Healthcare Systems Around the World



160+

Number of countries operating in

85,000+

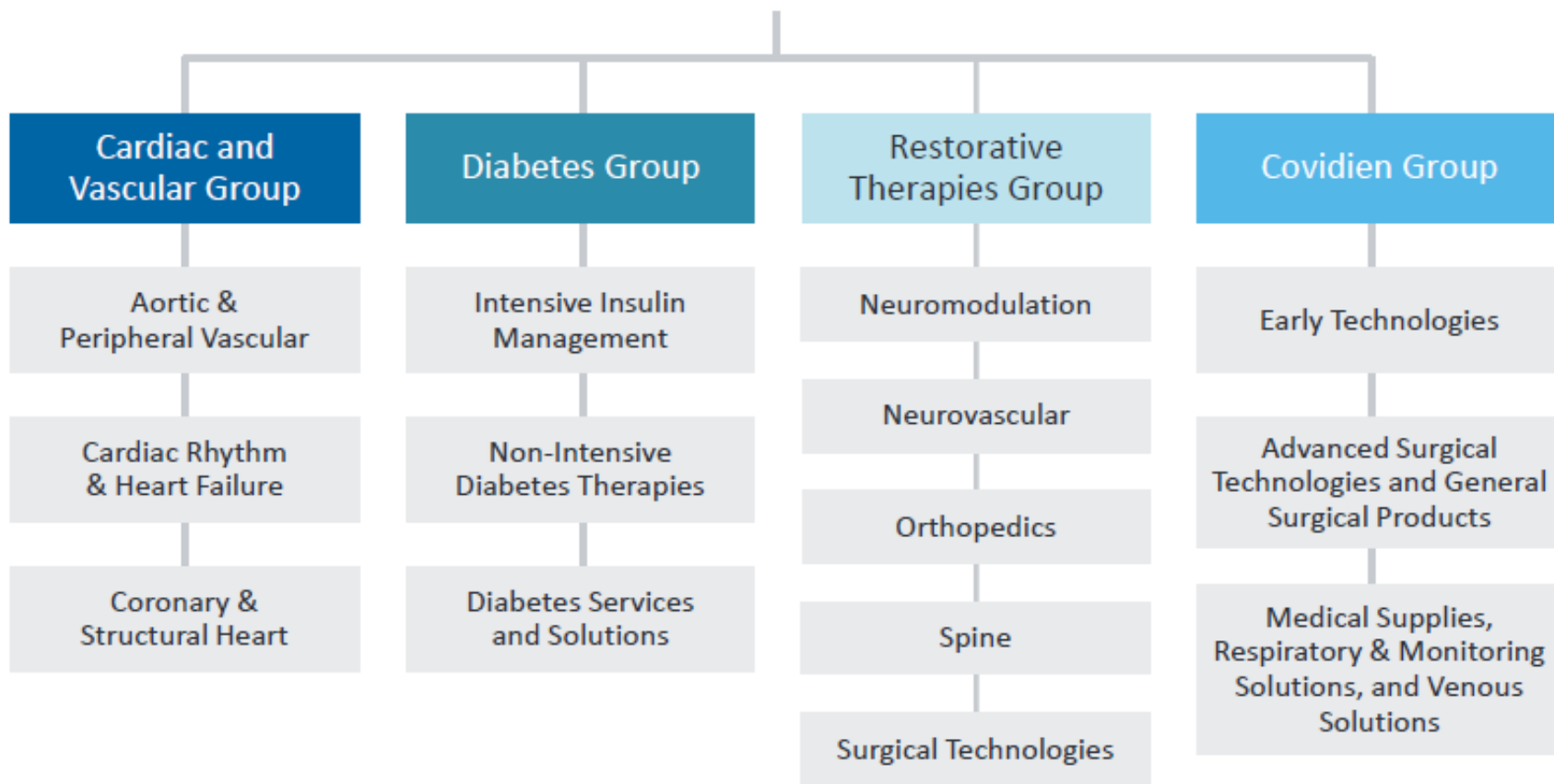
Employees

84 Manufacturing facilities

56 Research centers

Medtronic is a multi-national company structured into four regions.

Our Structure



Connecting What We Do with What People Need



CARDIAC RHYTHM

- Atrial fibrillation
- Slow heart rates (bradycardia)
- Fast heart rates (tachycardia)
- Heart failure
- Asymptomatic heart rates



CARDIO THORACIC

- + Interventional lung
- + Lobectomy and lung resection



CORONARY

- Coronary artery disease



DIABETES

- Type 1/type 2



DIAGNOSTICS AND SOLUTIONS

- + CO₂
- + Consciousness
- + Pulse oximetry
- + Skin integrity
- + Patient & caregiver safety



EAR, NOSE, AND THROAT

- Sinus diseases
- Thyroid conditions
- Otologic disorders
- Sleep-disordered breathing
- Pediatric conditions
- Ménière's disease
- + Thyroidectomy
- + Airway and ventilation



ENDOVASCULAR

- Aortic aneurysms
- Peripheral vascular disease
- + Arterial
- + Venous insufficiency
- + Deep vein thrombosis
- + End stage renal disease



NEUROLOGICAL

- Severe spasticity
- Parkinson's disease
- Essential tremor
- Dystonia*
- Hydrocephalus
- Obsessive-compulsive disorder*
- Brain tumors and lesions
- Chronic pain
- Subdural hematomas
- Cranial trauma
- + Acute ischemic stroke
- + Brain aneurysm
- + Vascular embolization



SPINAL AND ORTHOPEDIC

- Cervical degenerative disc disease
- Scoliosis
- Degenerative disc disease
- Spinal fracture
- Lumbar spinal stenosis
- Tibial fractures
- Orthopedic trauma



STRUCTURAL HEART

- Heart valve disease
- Congenital heart disease



UROLOGICAL, UROGYNECOLOGICAL, AND GASTROENTEROLOGICAL

- Overactive bladder and urinary retention
- Nausea and vomiting associated with gastroparesis*
- Fecal incontinence
- + Interventional GI
- + Cholecystectomy
- + Appendectomy
- + Barrett's esophagus
- + Capsule endoscopy
- + Hernia repair
- + Bariatric bypass and sleeves
- + Colon resection
- + Hemorrhoidectomy
- + Nutrition delivery
- + Hysterectomy, fibroids, and sterilization
- + Salpingo-oophorectomy

Medtronic Products

Surgical Solutions

• From advanced surgical technologies to general surgical products, we offer strong clinical and economic value through our range of market-leading products.



Tri-Staple™ Technology Platform



Clearify™ Visualization System



Symbotex™ Composite Mesh



PillCam® COLON



LigaSure™ Small Jaw Instrument



superDimension™ Navigation System



Sonicision™ Cordless Ultrasonic Dissection Device



Barrx™ Channel RFA Endoscopic Catheter

Respiratory & Patient Care

Patient Monitoring, Airway and Ventilation

•Drawing on decades of experience across areas of respiratory care, from ventilation and airway management to patient monitoring and homecare, our products build on a spirit of innovation and the legacy of some of the most respected names in health care.



Puritan Bennett™
980 Ventilator



Newport™ HT70 Plus
Portable Ventilator



Shiley™
Tracheostomy Tubes



Vital Sync™ Virtual Patient
Monitoring Platform



Nellcor™ Bedside Respiratory
Patient Monitoring System



INVOS™ Cerebral/Somatic
Oximeter



BIS™ Brain
Monitoring System



Capnostream® 20p
Bedside Monitor



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CETI CENTER FOR EXTERNAL
TECHNOLOGY INCUBATION

A New Model for Medical Entrepreneurship

Externally Funded Projects

Avenues for increasing Projects Pipeline

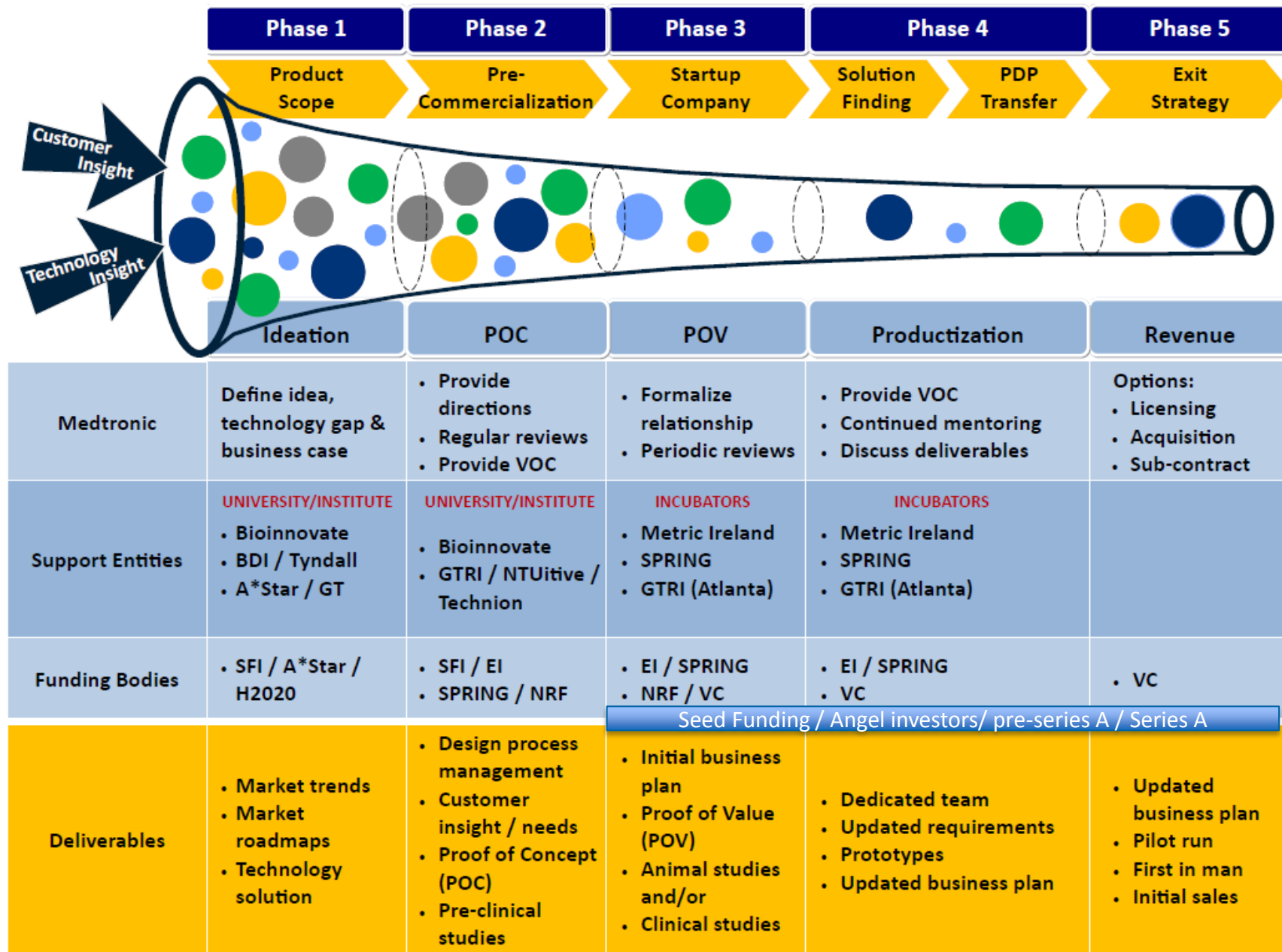
Benefit

- Reducing the risk involved in R&D for both parties
- Preserving IP while leveraging external expertise
- Linking external funding to ROI / NPV

Funding Sources

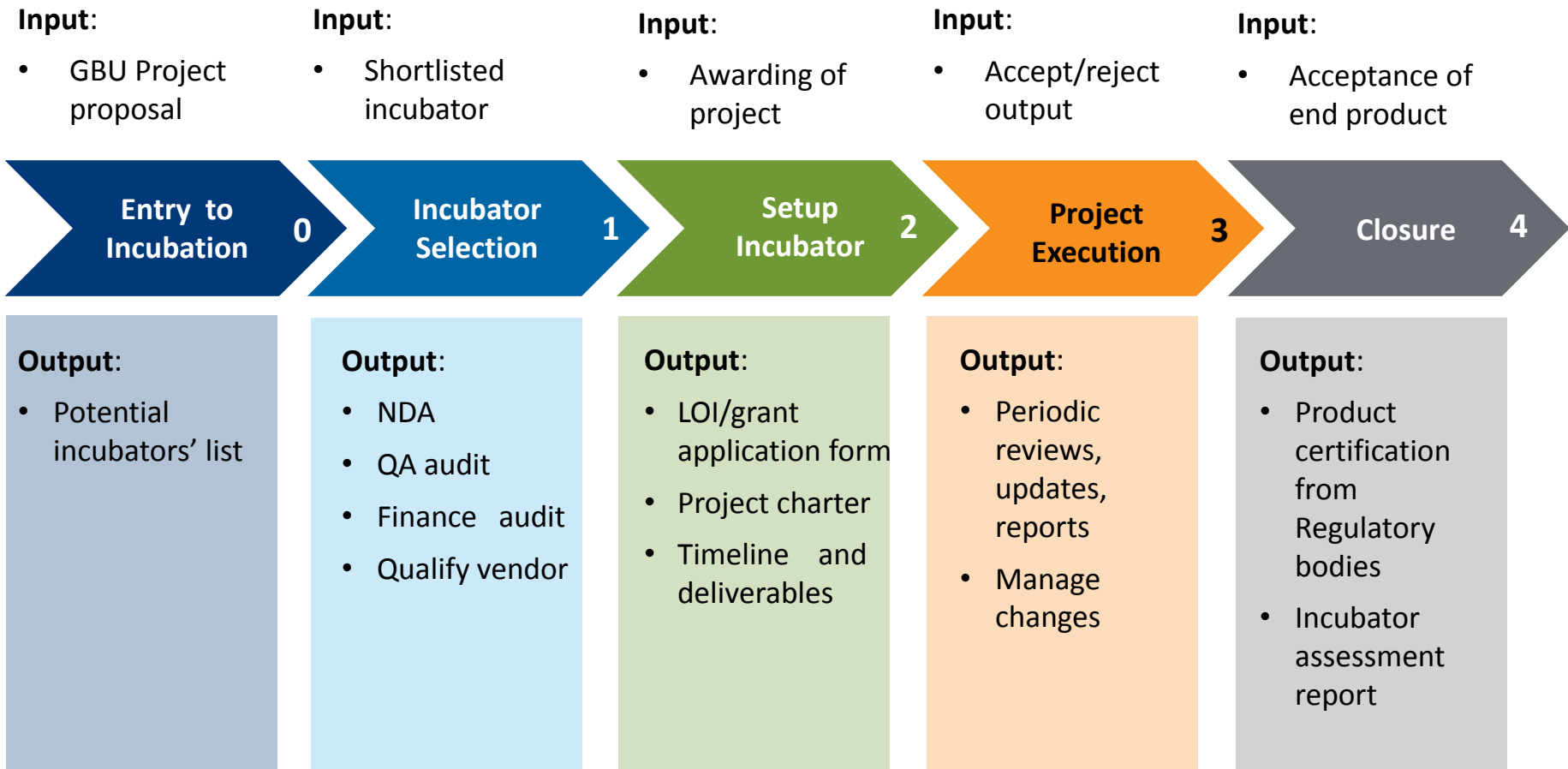
- Government
- VC funds based incubation
- Funded by current partners (e.g. suppliers)

Startup Incubation



Seed Funding / Angel investors / pre-series A / Series A

External Project Incubation - Process



External Technology Incubation

Project specific expertise at Partners

Internal development process / system

- In-house product development process (PDP)
- Management of design history file (DHF) system

In-house technical expertise

- Expertise dependent on project requirements
- Expertise areas could range from chemistry, materials, software, mechanical, electrical, IOT, etc.

Prototyping capability

- Ability to conduct rapid prototyping

System level design and integration expertise

- Box build, testing, test framework design
- QA design and documentation

External Technology Incubation

Base requirements for Partners

ISO 13485 certification

- FDA approval is preferred

Project Management

- Proven product development experience in the Med Tech sector

Regulatory Expertise

- Proven experience in developing compliance to regulatory requirements

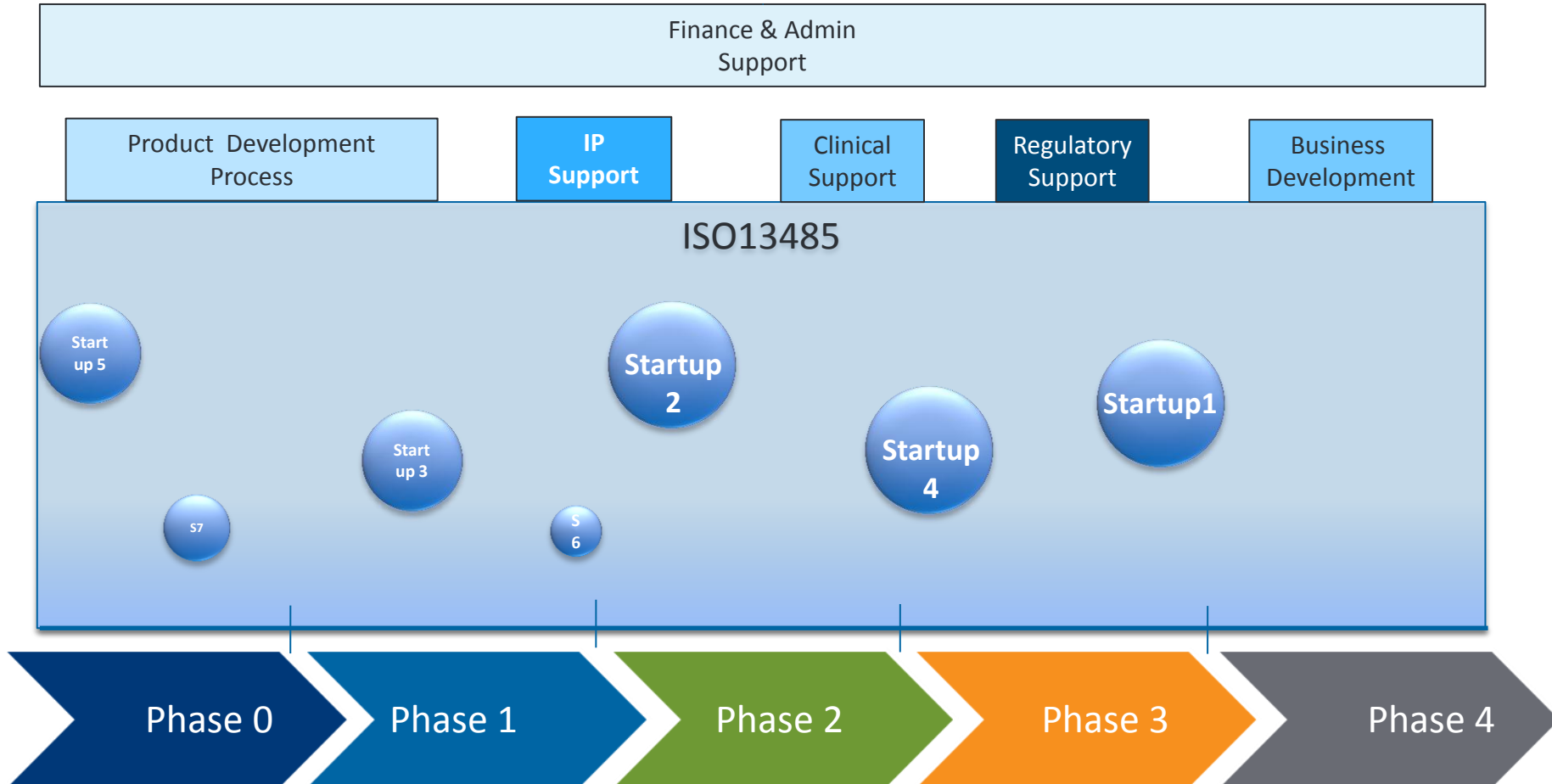
Partnerships for extended capability access

- Partnerships for non-core expertise

Clinical

- Experience in developing and conducting VOC and clinical trials

Incubator Model





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Q & A
Thank you!

Framework for Collaboration

| Areas | Stakeholders | Expected Outcome |
|------------|---|--|
| Legal | University & Company Legal and Tax departments | Agreement Template |
| Financial | Finance directors | Acceptable Financial Model |
| Technical | Research Labs, Company R&D and Marketing teams | Defined Timelines and Deliverables format |
| Commercial | University Management & Company Business Leaders | Business Model |