

### Group Technology

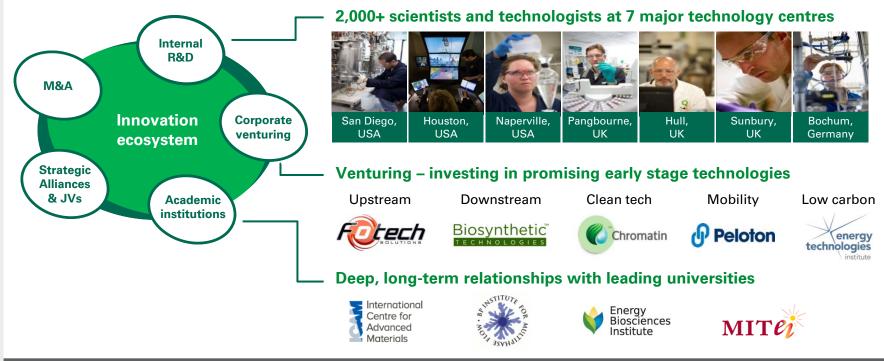




## BP has a thriving innovation ecosystem



Technological innovation underpins our efforts to make our operations and products more efficient and sustainable



# BP Ventures objectives and investment strategy



#### Approach

- Global investor
- Early and growth stage technology companies
- Active investor with board seat

#### Strategic and Financial value

- \$5m initial investment
- \$20m+ lifetime investment
- Strategic and financial returns









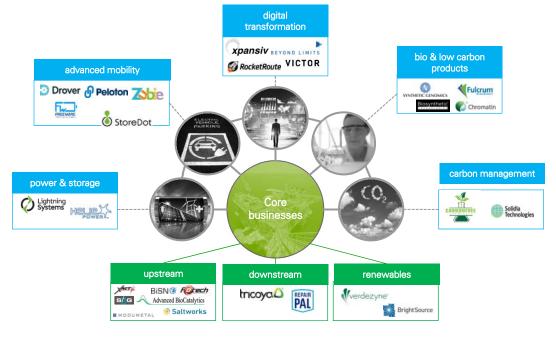






# BP Ventures portfolio





#### Established in 2006

Investments in 40+ portfolio companies

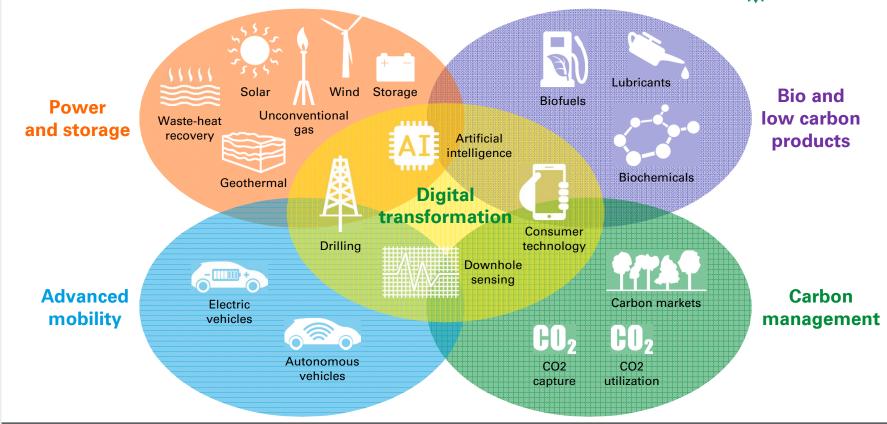
\$400m invested since 2006; \$91m in 2017

12 technologies deployed across BP in 2017, delivering over \$100m in strategic value

Aim to return \$5 to BP for every \$1 we invest through preferential access

Scanning across five main sectors today

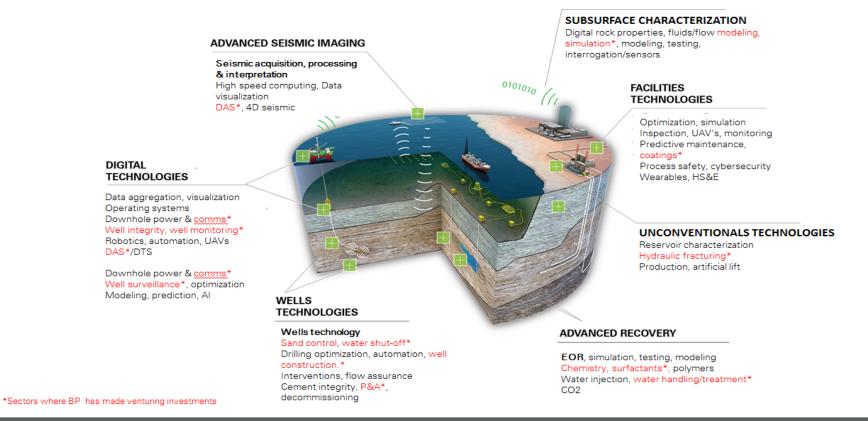






# Technology focus: Upstream



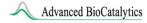




## BP Ventures investment portfolio



#### Core business















Bio and low

Carbon

Power and









































### The BP Ventures portfolio



#### Upstream

Advanced BioCatalytics - product acts synergistically with surfactants to lower interfacial tension and the micelle concentration leading to increased performance and reduced



**BiSN** – versatile plugging solution based on deploying a liquefied metal alloy downhole to plug leaks and control water or gas production



Fotech – fibre optic Distribution Acoustic Sensing for monitoring pipelines and downhole operations: fracture monitoring, production logging and leaf detection



Modumetal - nanolaminated materials to improve the structural, corrosion and high temperature performance of coatings, bulk materials and parts



#### Saltworks Technologies -

develops, manufactures and operates solutions for desalination, brine management and chemical recovery applications



**Silicon Microgravity** – innovative gravity and rate gyro sensor primarily for water-flood and flood-front monitoring and control



**Xact** – designs and builds down-hole Acoustic Monitor: easy to install and collect information dynamically and in the absence of flow



**Beyond Limits** – a leading artificial intelligence (AI) and cognitive computing company





### For more information



Contact me at <a href="mailto:luis.alcoser@bp.com">luis.alcoser@bp.com</a>

Or visit us at bp.com/ventures



### Luis Alcoser – Upstream Tech Manager & Venture Principal



- Lead for BP Upstream Venturing
- Hydraulic Fracturing / Sand Control, Completions SME
- 20 years in Upstream Wells, Projects & Technology; Conventionals, Unconventionals, Deepwater, Arctic
- P.E., PMP
- B.S. Natural Gas Eng
- M.E. Petroleum Eng MBA & Master in Finance
- J.D.

