



20:20 Vision

Insights to Future Proof Your Water Strategy

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BlueTech Intelligence Platform

- A tool to answer questions quickly

The BlueTech platform provides real-time interactive insight on demand.

Drivers Mind-maps

We map drivers to themes and look at how this links to technology opportunity.

Factors Affecting

Urbanization
Population growth and migration
Growing per capita water use
Uneven Water Distribution
Depletion of non-renewable groundwater
Climate Change



What this will drive

Water Reuse
Water Avoidance
Source Separation
Decentralized Treatment
Zero Liquid Discharge
Alternative Water Sources
Water Conservation

Tracking Innovation

BlueTech Tracker, Patent Watch and Licensing portal are interactive tools to analyze innovation.

The screenshot shows a web interface for "Innovation Tracker Maps". It includes a navigation menu with "Listing", "Charts", "Maps", and "Analysis". A "FILTER BY" section is visible with filters applied for "TECHNOLOGY: CERAMIC MEMBRANES", "TECHNOLOGY: FORWARD OSMOSIS", "OPERATING STATUS: ACQUIRED", and "OPERATING STATUS: OPERATING". The main content area displays "Innovation Tracker Maps" with a world map showing data points. A "Back to continent map" button is at the bottom left of the map area. The footer indicates "JS map by amCharts".

BlueTech Intelligence Platform

- Decision support tools to track dynamic markets

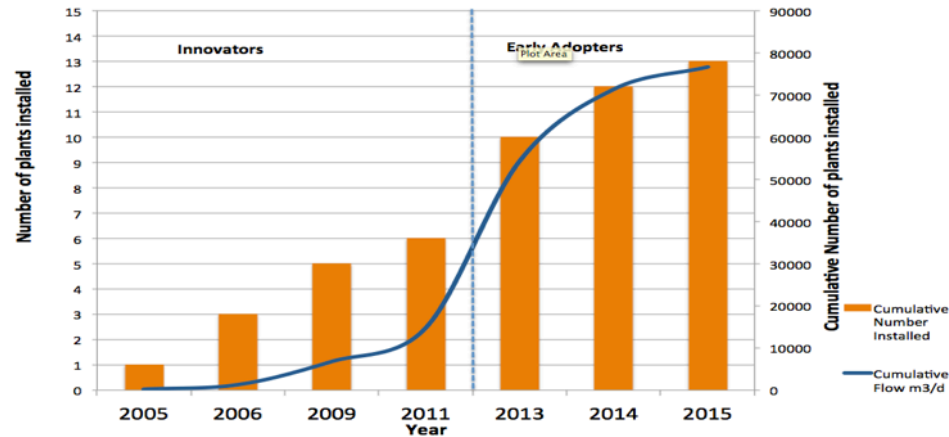
Interactive Reference Facility Maps

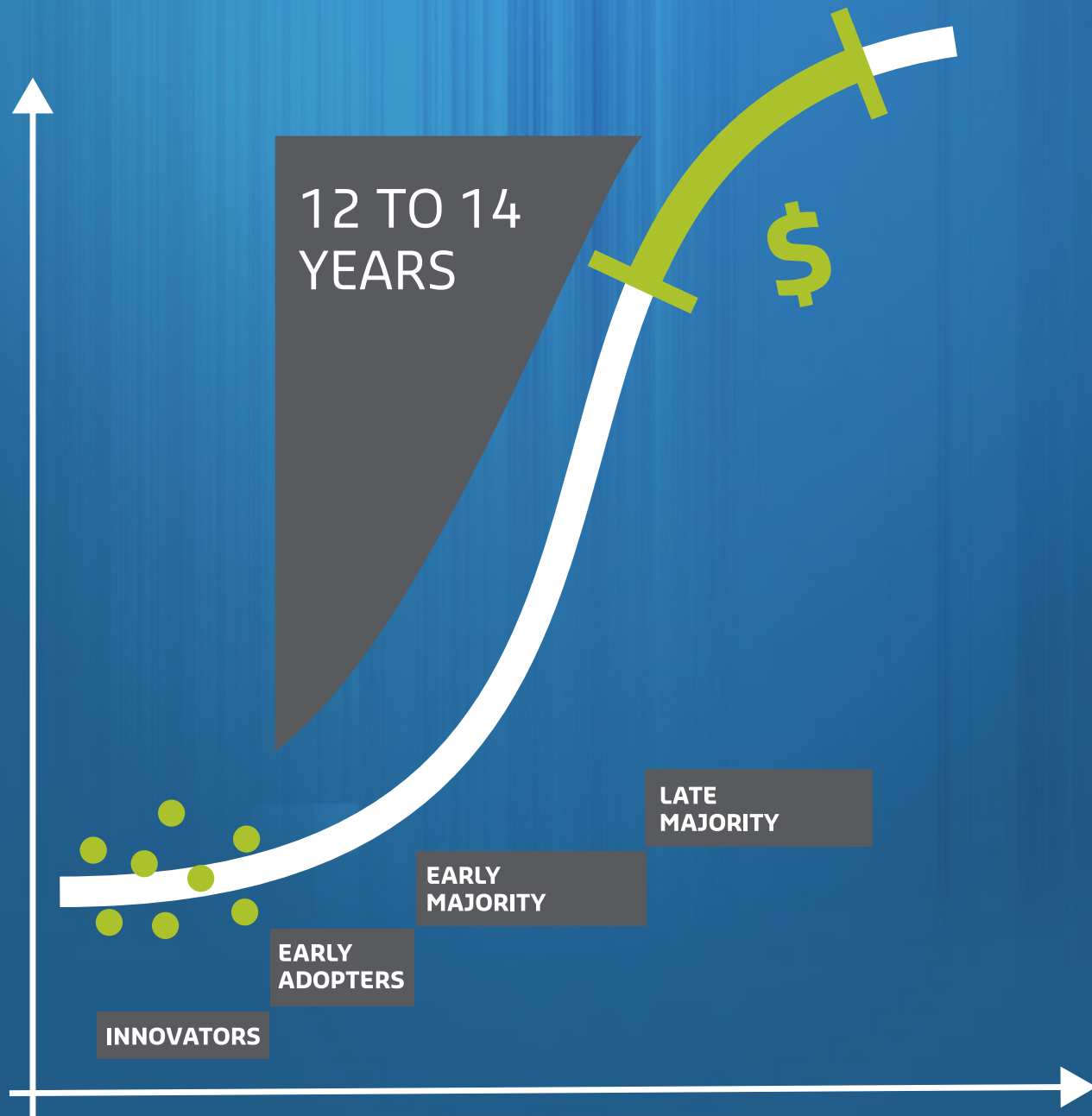
In the water sector references are key. We maintain libraries of reference sites to track technology diffusion.



Dynamic Technology S-curves

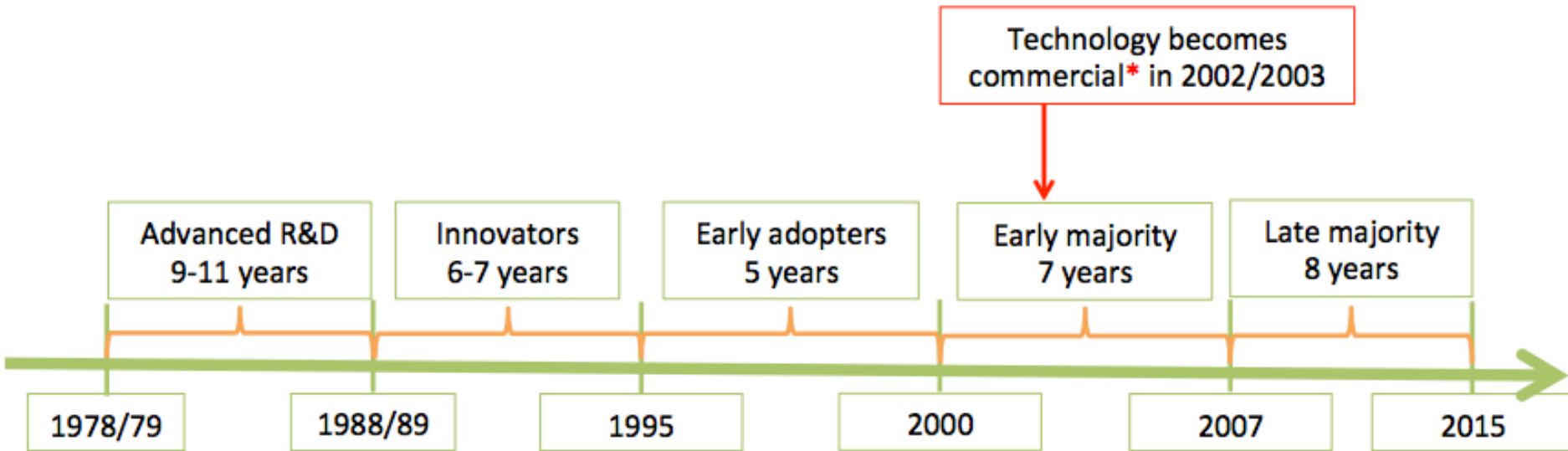
Monitoring technology allows us to help understand the state of maturity of a technology market and predict when is the right time for R&D, strategic investment and acquisition.





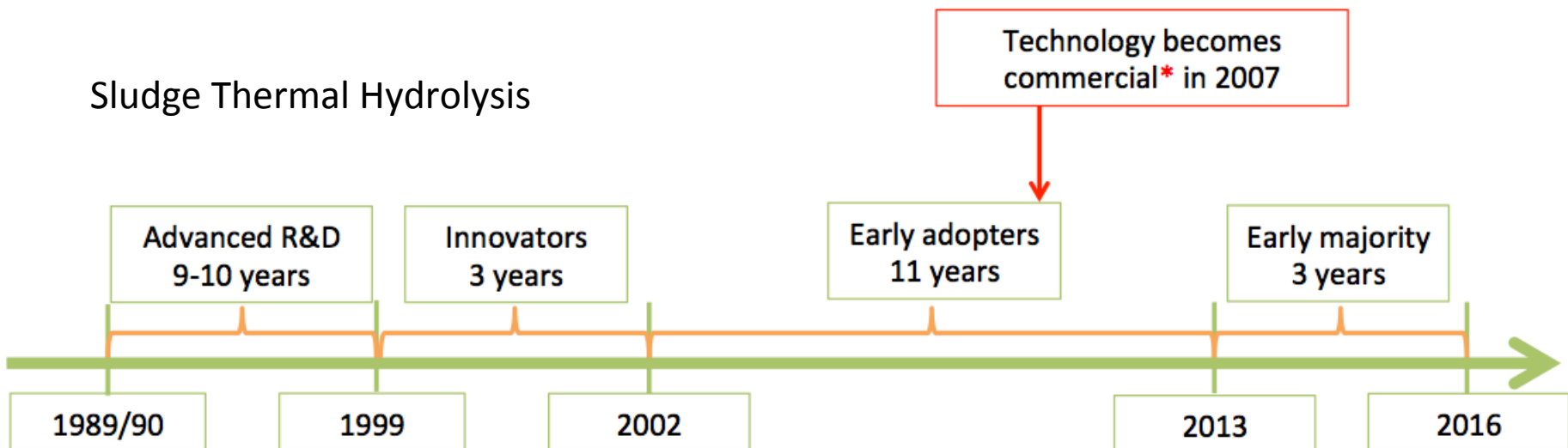
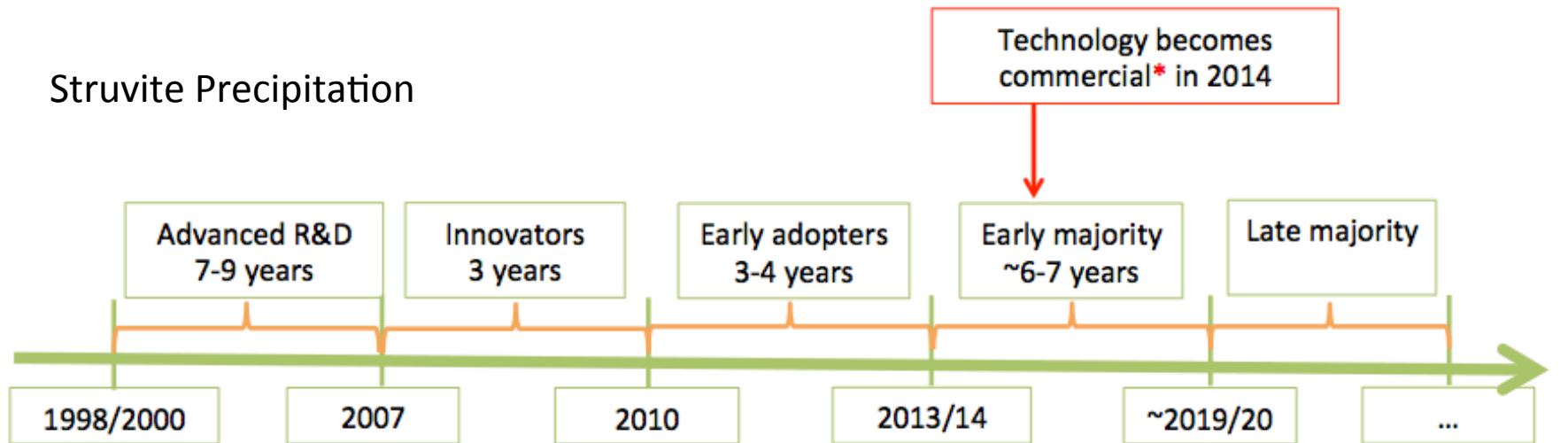
Company	Technology Offering	BlueTruffle Score
Cambi Technology AS	Thermal Hydrolysis Process (THP)	5 out of 5
Energy Recovery, Inc	PX™ Pressure Exchanger Technology	5 out of 5
AquaTech	Aqua-Chem ICD brine concentrator & HERO™	4.5 out of 5
Desalitech	Closed Circuit Desalination - low energy desalination technology	4.5 out of 5
Pure Technologies Ltd	SmartBall® - Leak detection technology	4.5 out of 5
Nanostone Water	Ceramic Filter Membranes	4.5 out of 5
Orica Watercare	MIEX® Ion Exchange System	4.5 out of 5
Innoveox	Supercritical Water Oxidation (SCWO)	4.5 out of 5
Cerahelix	Helix NFM (Nanofiltration Membrane)	4.5 out of 5
Syrinix	TrunkMinder - leak monitoring system	4.5 out of 5

Time-lines for Technology Adoption Membrane Bioreactors

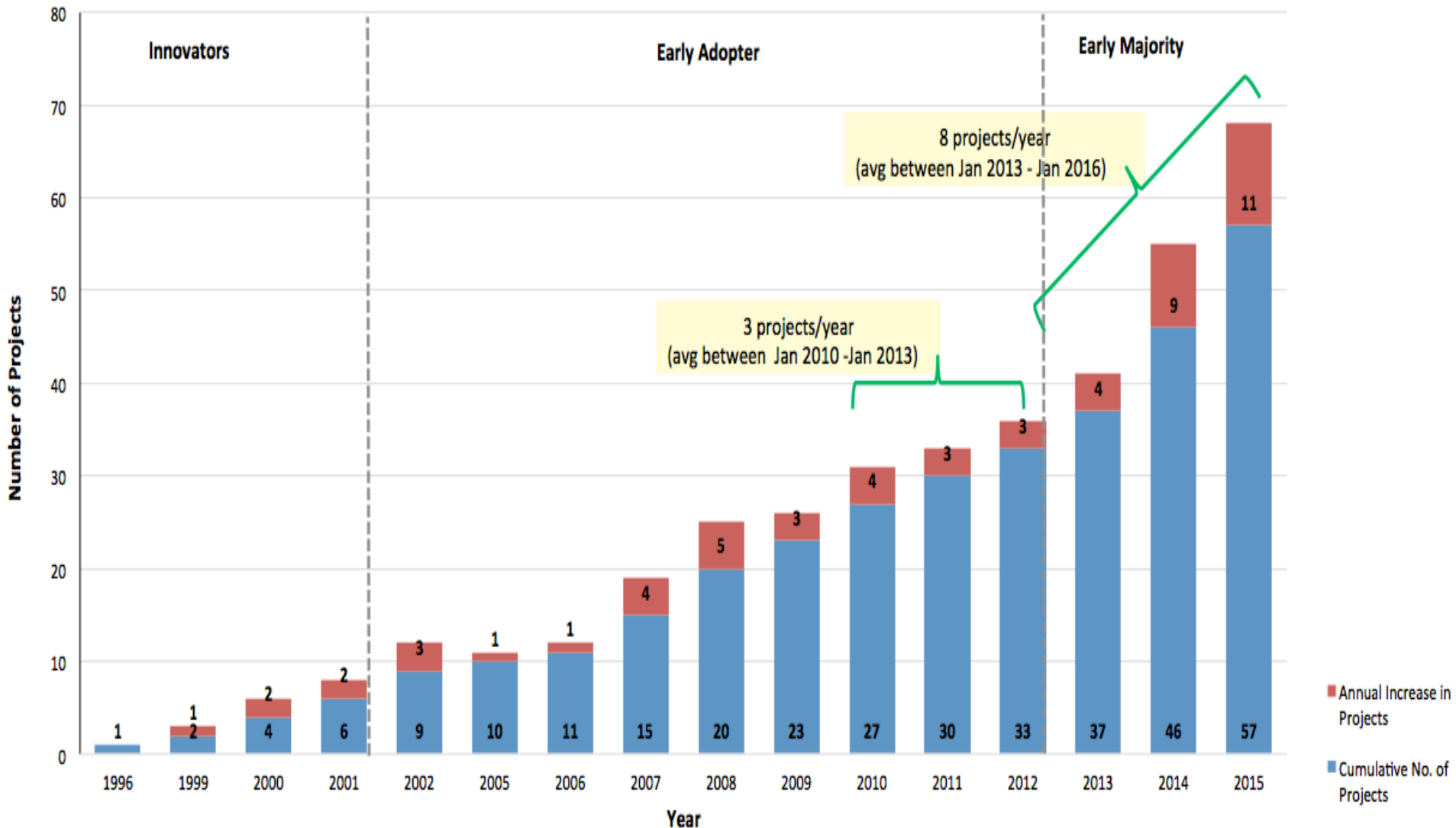


Time-lines for Technology Adoption

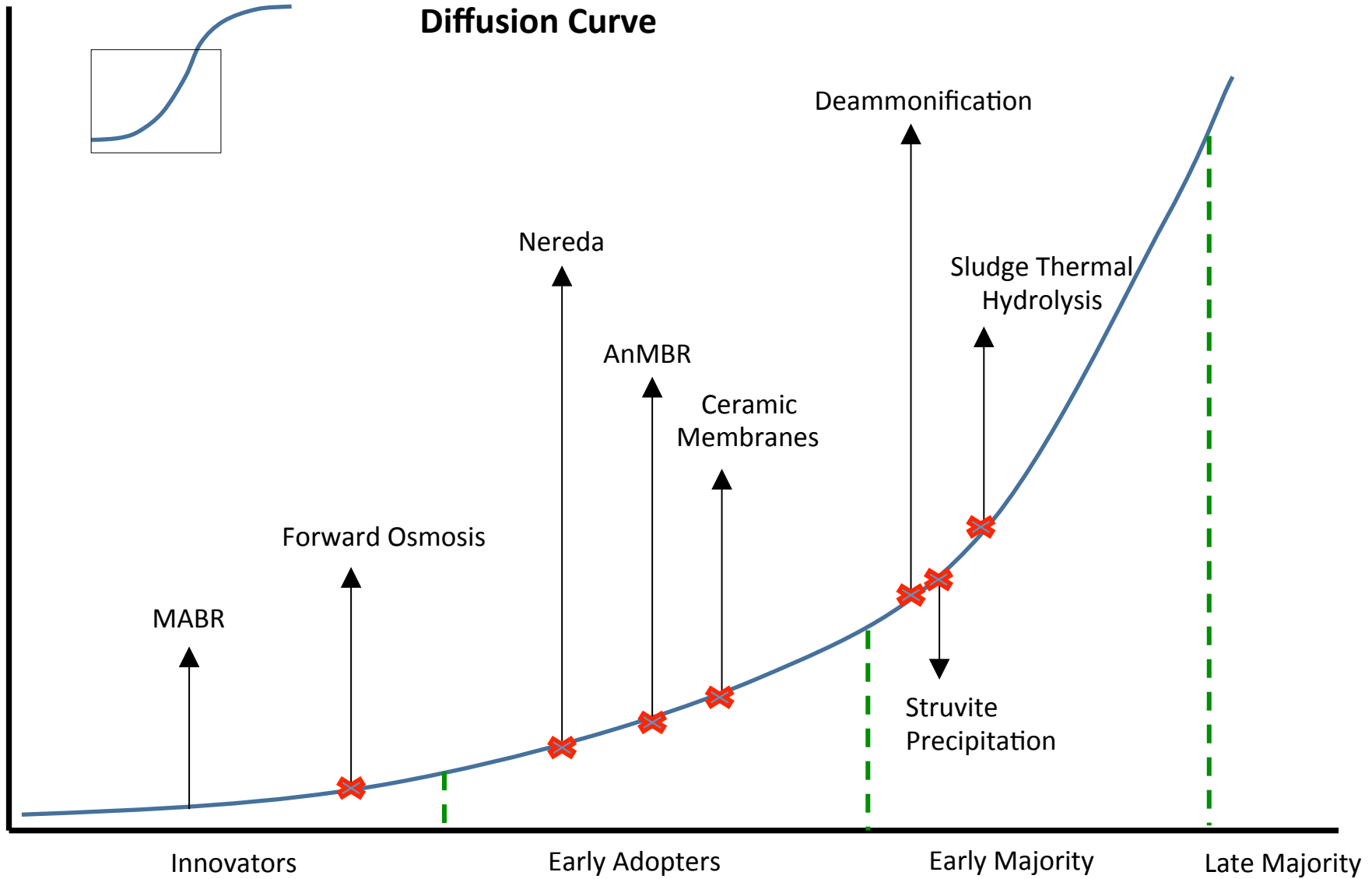
Struvite precipitation



Sludge Thermal Hydrolysis poised for growth



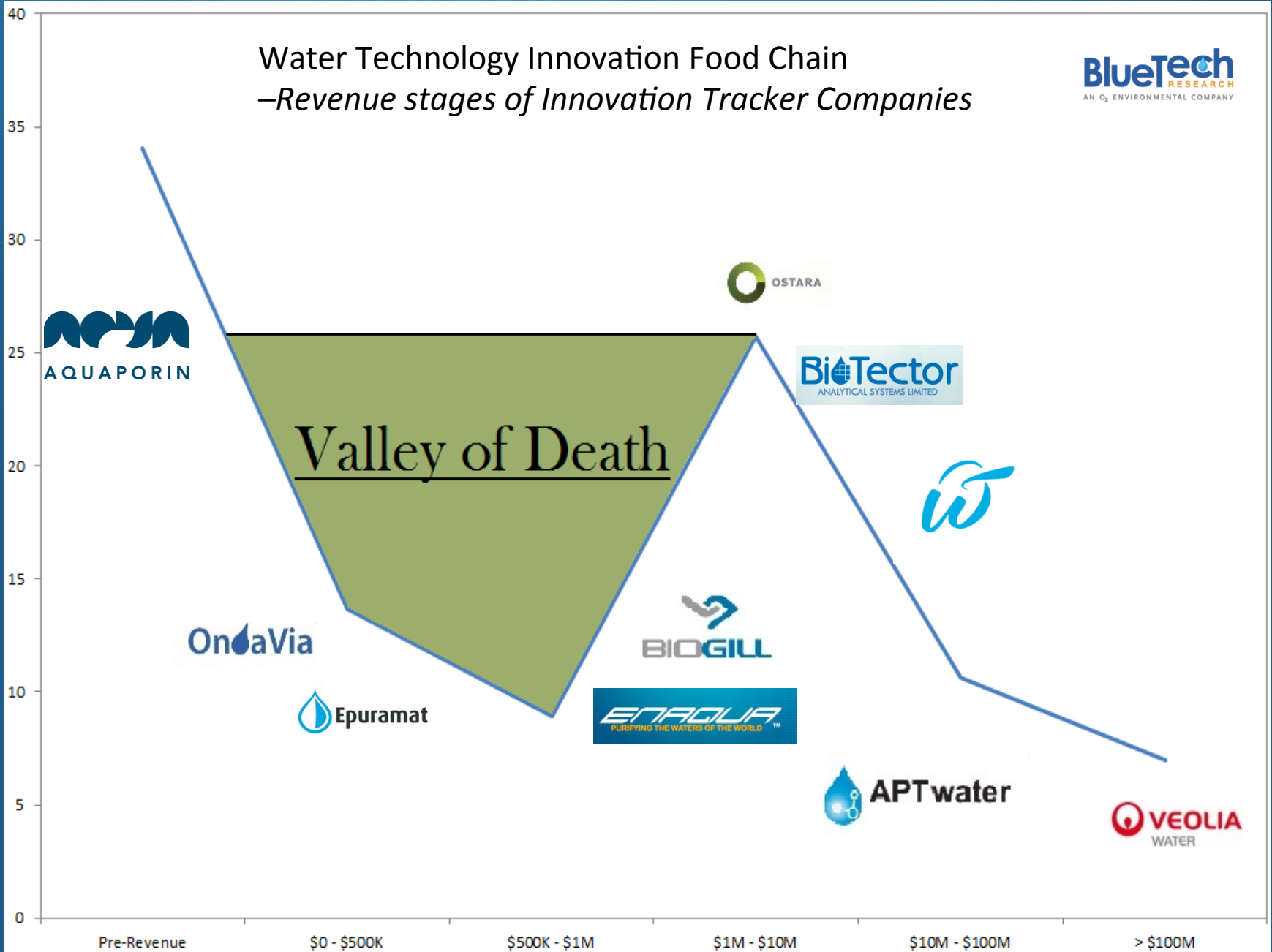
Stage of Next Wave Technologies on the Technology Diffusion Curve



Water Technology Innovation Food Chain

–Revenue stages of Innovation Tracker Companies

Percentage of BlueTech Innovation Tracker Companies



Non-starters

Never really got going - '*Optical Illusions*'

- Many companies fall into this category
- Impossible to tell at the outset

– Agua Via

- Stage: Applied Research
- Years taken: 11 Year
- Factors: In this case, two people with an idea as opposed to a company. Impossible to tell at the outset.

– Aquavive

- Stage: Pilot Stage
- Years taken: 6 Years
- Factors: No solid science, team with limited experience.



Stalled Out

- No velocity

- Companies that are taking >1.5X the industry average standard time at each stage
- SCFI – Aquacritox
 - Stage: Demonstration Stage
 - Years taken so far: 12 Years
 - Factors: Waiting for a 'tomorrow's market', scale-up fear, capital intensive.
- Calera Corporation
 - Stage: Demonstration Stage
 - Years taken so far: 9 Years
 - Factors: A complex value proposition, requires a confluence of factors, complex to execute.



Failed *'Crashed and Burned'*

- Companies that failed at various stages along the journey.
- Lack of 'exit velocity' a factor
- MAR Systems
 - Stage: Demonstration Stage
 - Time to Failure: 18 Years
 - Factors: The technology advantage and cost structure appear to have not been strong enough, waiting on a 'tomorrow's market'
- Enertech
 - Stage: Demonstration Stage
 - Time to Failure: 24 Years
 - Factors: Scale-up issues were a key factor.
 - Waiting on a 'tomorrow's market'



Have Velocity *'moving right along'*

- Companies making a steady rate of progress in-keeping with industry norms
- **Voltea**
 - Stage: Proven Technology
 - Years Taken So far: 10 Years
- **Oasys**
 - Stage: Proven Technology
 - Years Taken So far: 8 Years
- **Water Planet**
 - Stage:
 - Years Taken So far: 5 Years
- **Pasteurization Technology Group**
 - Stage: Proven Technology
 - Years Taken So far: 9 Years



Working Theses

- There are reasonable industry time-frames it takes to commercialize a technology and develop a new market
 - The greater the deviation from these averages the higher the probability of failure
 - Therefore Velocity is an important metric to track
- Markets grow at different rates in different stages of the market adoption curve
 - We can use this to help predict market growth rate and value
- System level changes will follow a similar adoption cycle to technologies e.g. Direct Potable Re-use, Energy Neutral Wastewater.
- Innovation in Water may be crisis driven and regulation driven
 - Technology success may be heavily impacted by being in the right place at the right time