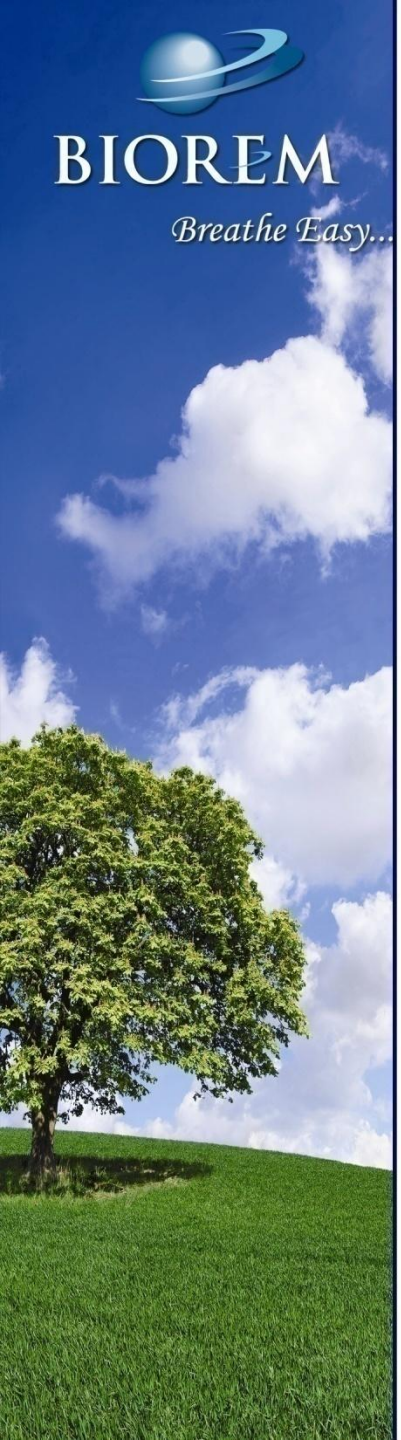

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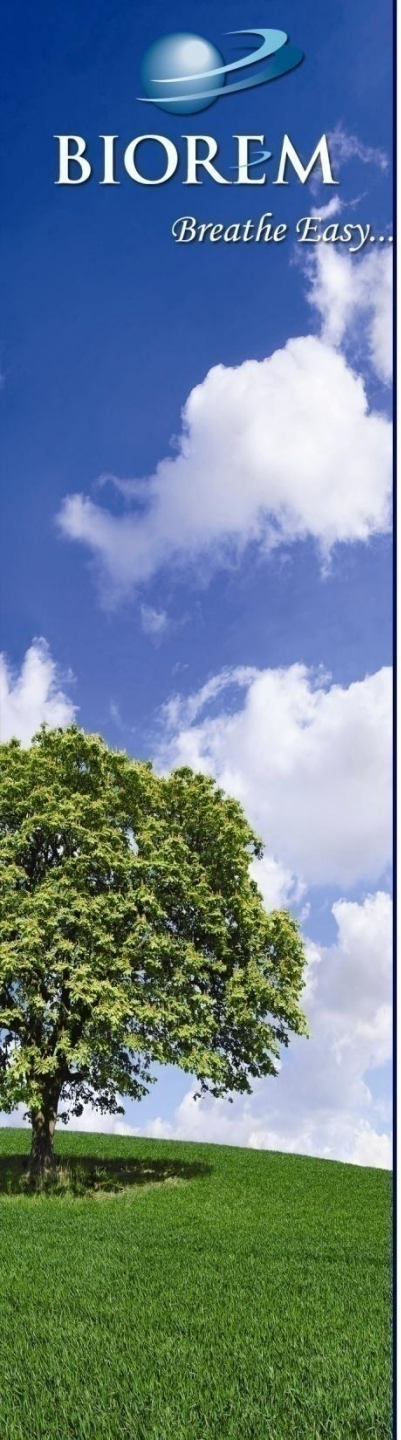
WTO Workshop on Environmental Goods &Services

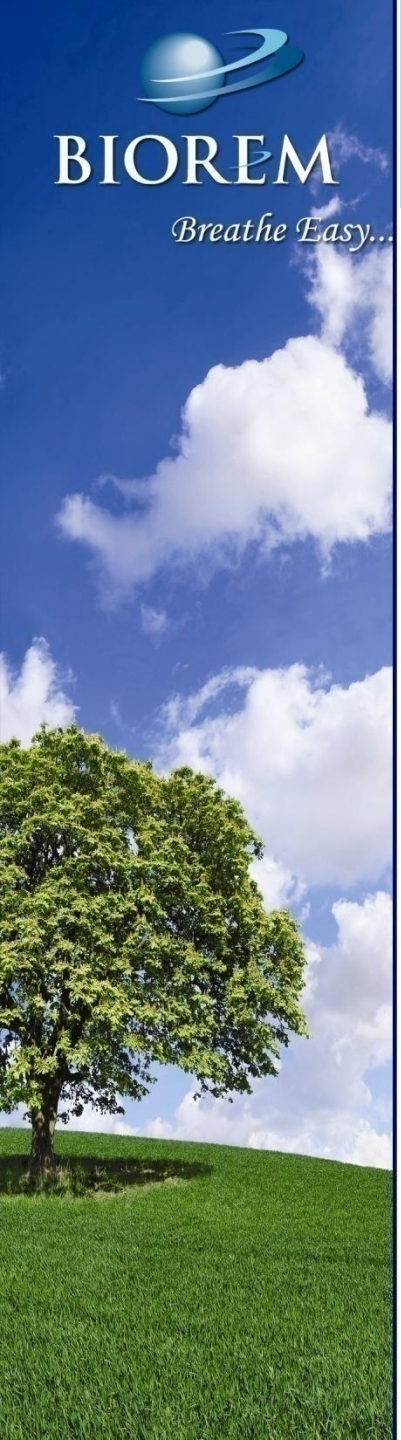
Geneva, Switzerland

September 25, 2009



Peter Bruijns

President & CEO



About Biorem Technologies

Designs, manufactures and distributes

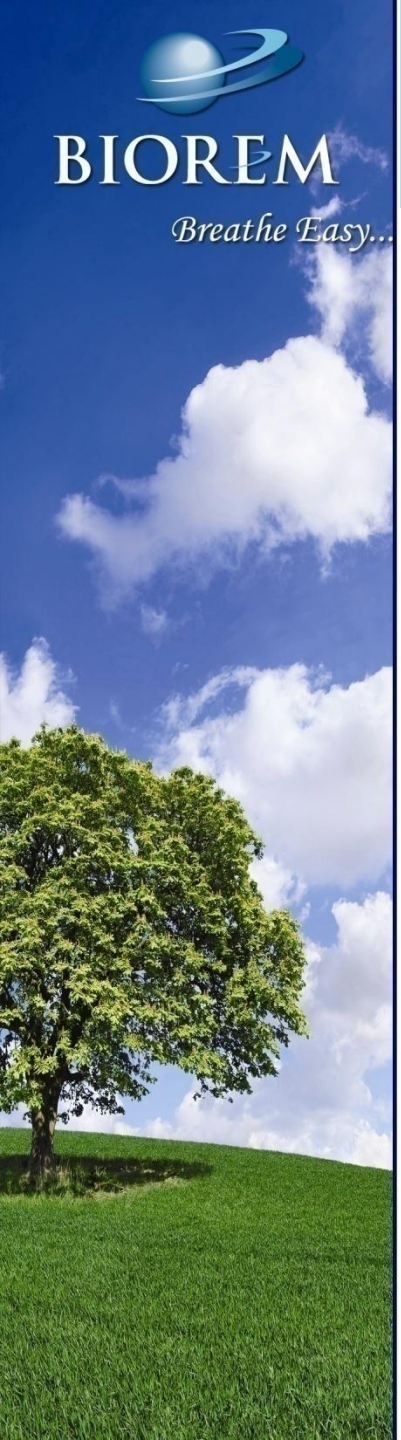
air emission control systems that

remove harmful contaminants from the air,

such as Hydrogen Sulfide, Reduced Sulfur compounds,

and VOC's

using biological processes



About BIOREM

- Established in 1995
- Headquartered in Guelph, Ontario, Canada
- Technology spin-off of the University of Waterloo
  (Waterloo, Ontario, Canada)
- Leader in biofiltration technology in North America
- Initial public offering in January 2005
  (TSX Venture Exchange, TSX-V: BRM)
- Revenue growth rapid in recent years ~50%
- Over 600 installations worldwide
  (Canada, U.S., China, Middle East, Africa, Brazil, Mexico, etc.)
- Installations have small footprint and are high-efficiency/ cost-effective alternatives to competitive “non-clean” technologies

Biofiltration

Overview:

- Consists of Biotrickling or Biofilter configurations
- A Biotrickling filter runs water continuously over media
- Biofilter wetted twice a day, for 15 to 20 minutes
- May be organized into series if needed

Process:

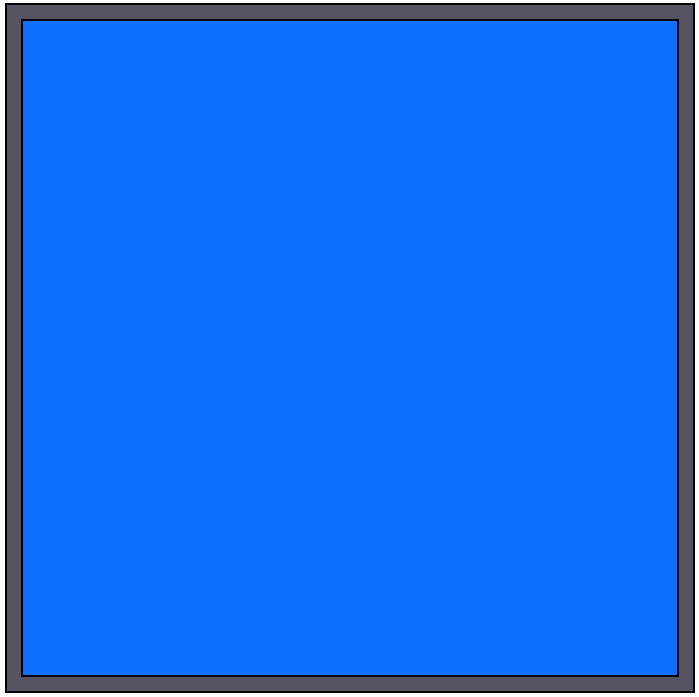
1. Fouled air enters biotrickler and/or biofilter
2. Air passes through a biofilter media
3. Bacterial community is grown upon media
4. Pollutants solubilize into the moist media
5. Bacteria destroys pollutants
6. Clean air exits

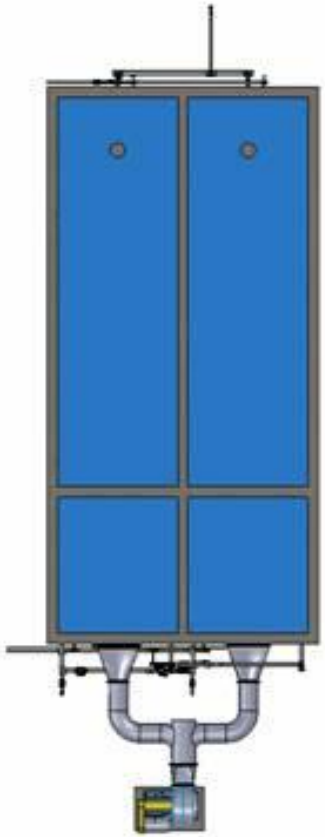
Becoming Cost Competitive

Organic Biofilter

Biosorbens Biotrickler/Biofilter

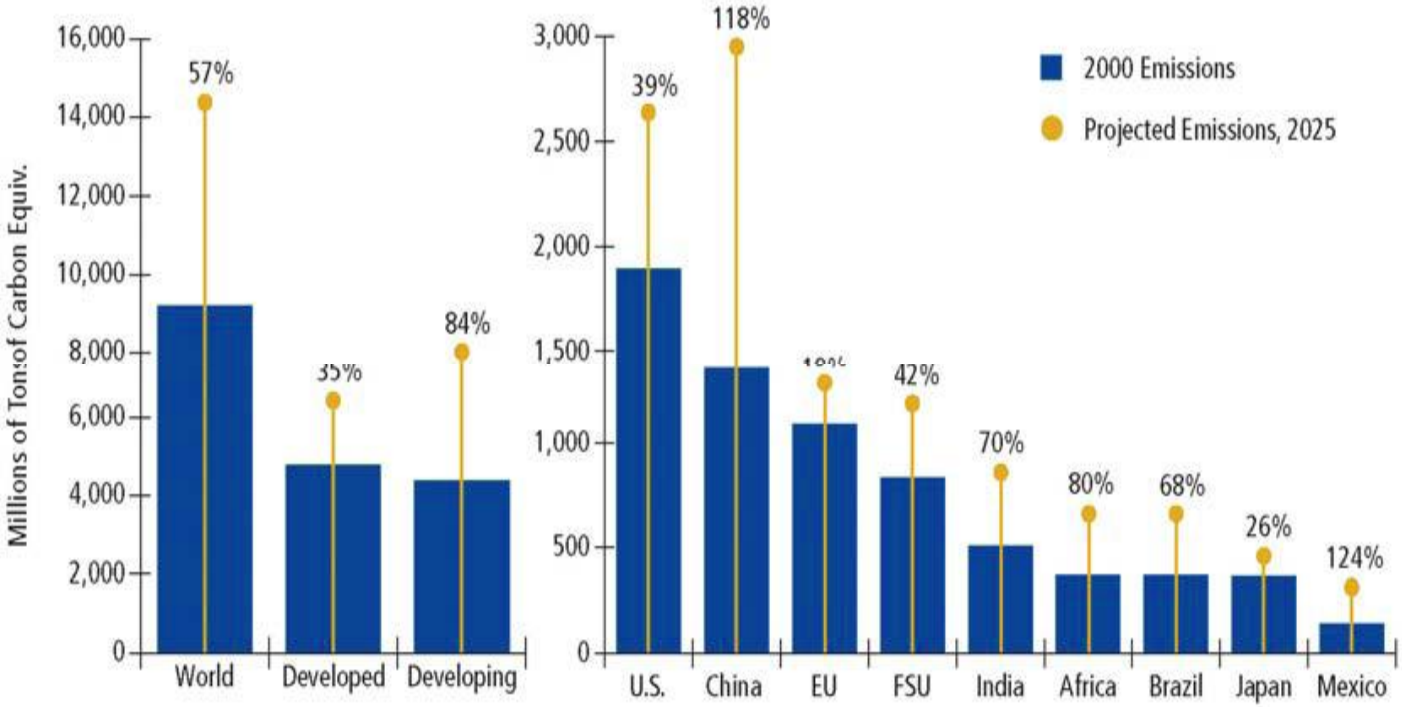
XLD Biofilter





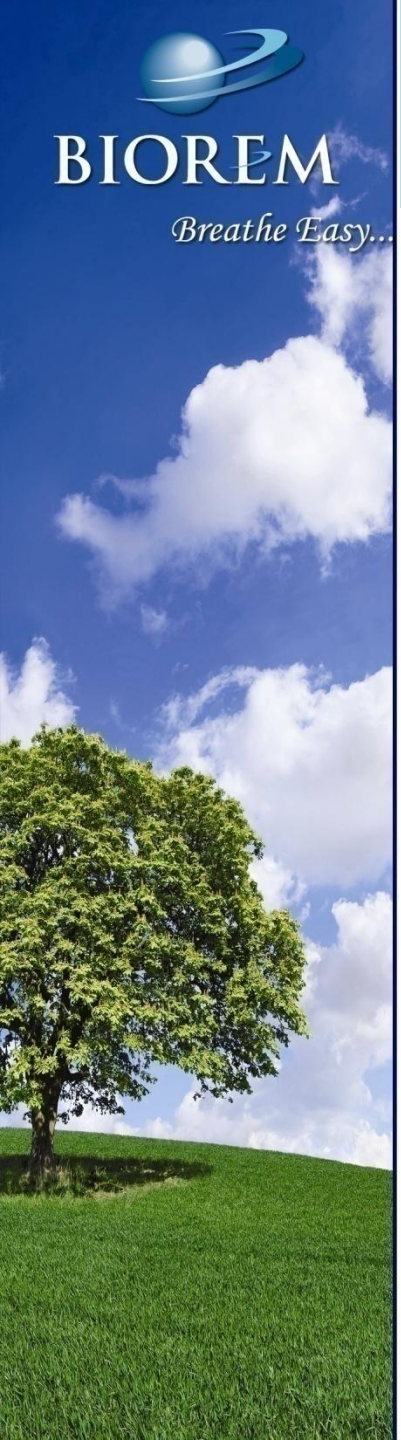
15 years ago (organic) 5 years ago (BS) Today (XLD)

GHG Emissions Projections



Projected Emissions of man made GHGs in 2025. GHG emissions are projected to grow throughout the world, but most rapidly in developing countries.

Source: *Navigating the Numbers: Greenhouse Gas Data and International Climate Policy:* World Resources Institute



Emissions Implications: Context

Atmosphere's mass is fixed at **5 quadrillion tonnes**

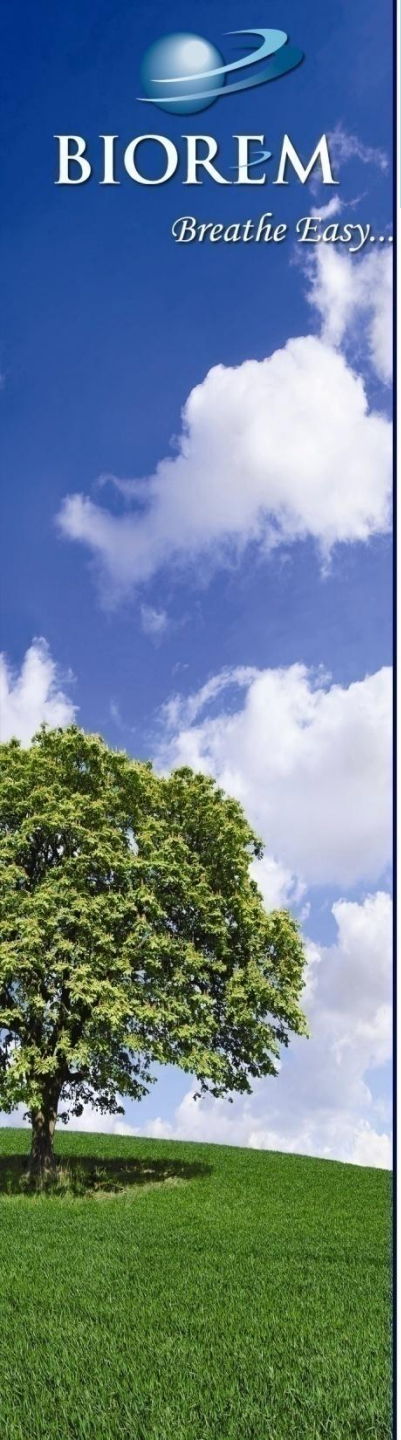
- Mankind's pollution emission contributions are **9.5 billion tonnes** of CO2 eq per year (2000)
- Mankind's emissions are expected to rise to **14.7 billion tonnes** of CO2 eq per year by 2025
- Over the next 25 years we will emit a total of **300 billion tonnes** of CO2 eq.

Source: *Navigating the Numbers: Greenhouse Gas Data and International Climate Policy:* World Resources Institute

Emissions Implications: Context

Other considerations:

- Siberian Permafrost thaw will contribute 70 billion tonnes of methane, which equals 1.4 trillion tonnes of CO_2 eq.
- Canadian pine beetle infestation
- Deforestation
- Canadian Permafrost melt



Four Key Points

1. Policy and Regulatory Environment are **behind** the pace at which our atmosphere is deteriorating

2. Few Cleantech Air Funds focused on development of companies and technologies for air emissions management

3. Clean Air technologies reside in small companies and/or Universities and cannot scale up at necessary pace

4. Regulators are reluctant to adopt new technologies which perpetuates Activated Carbon, Thermal Oxidation and Chemical Scrubbers

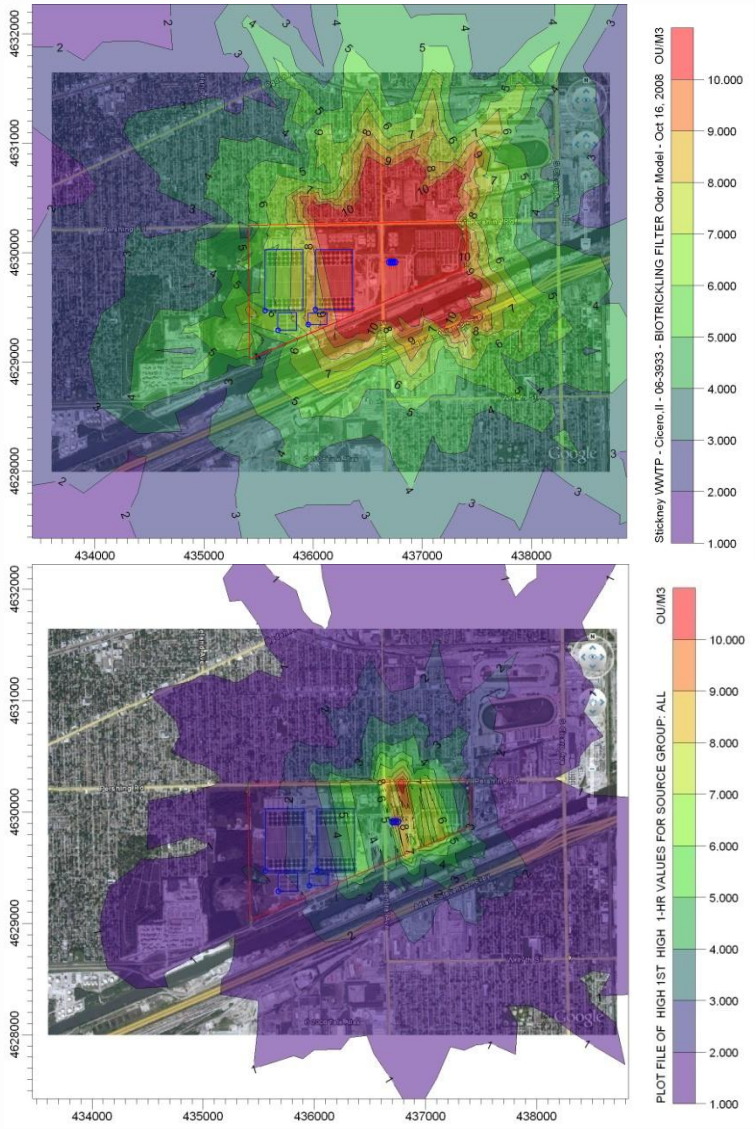
Every emission has a wide effect

Example
- Chicago, Stickney WWTP
- One of worlds largest plants
- Odor Dispersion Model
- Overlaid onto Google Maps

Top Graphic
- Odor dispersion from Scrubbers
- Extend well beyond plant limits

Lower Graphic
- Odor dispersion XLD Biofilter
- Odor does not go beyond plant

Result
- Community has a vested interest
- One emission amongst many
- Sum of emissions is cumulative



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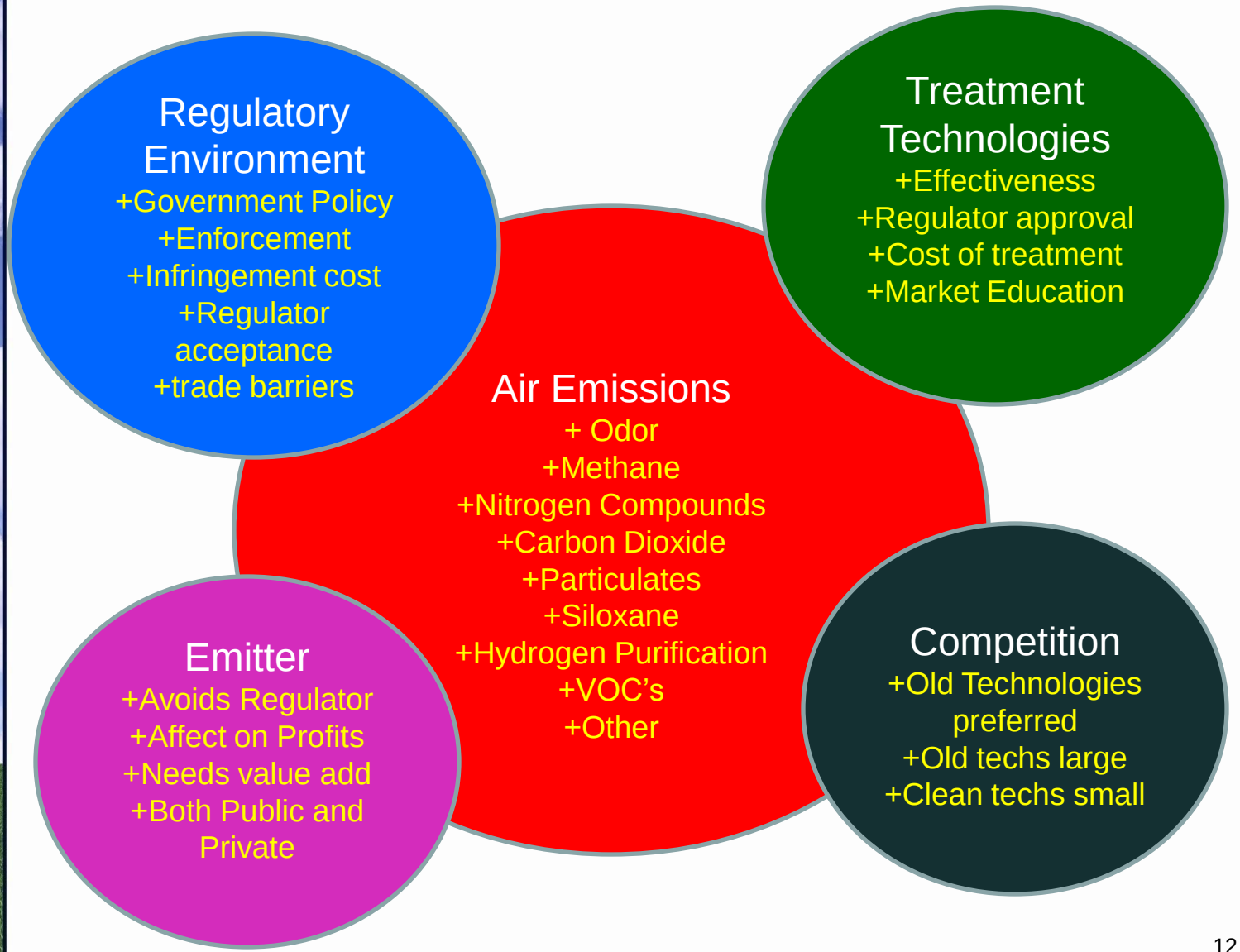
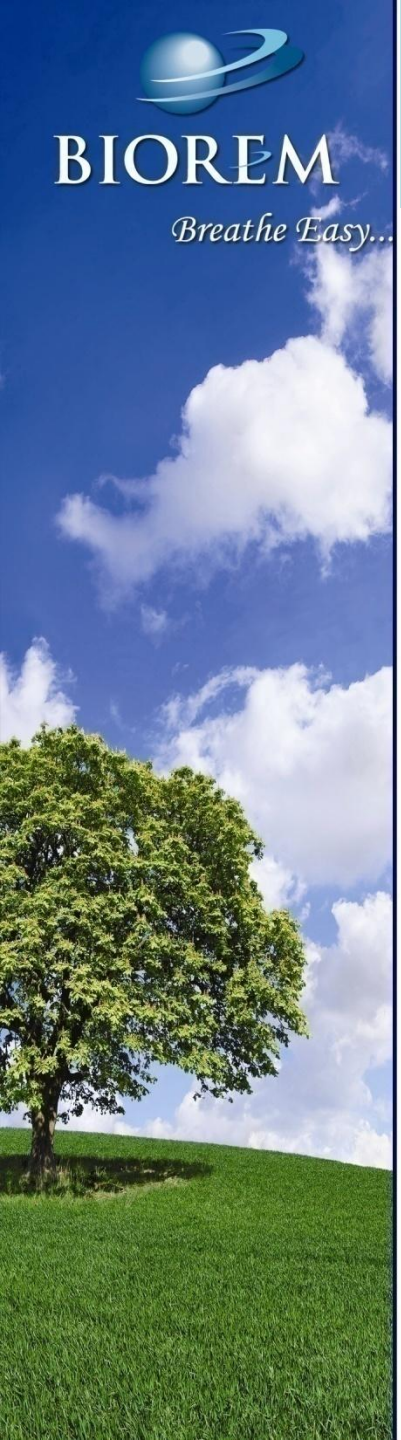
Emissions Market – Macro View





Commercial Issues

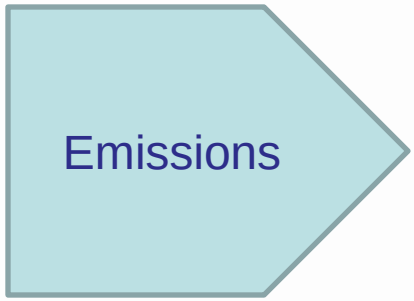
1. Many countries do not enforce intellectual property laws
   - Risk of technology theft
2. Import duties make foreign technologies expensive
3. Regulatory framework is at heart of economic system for clean technology emissions business
   - Few jurisdictions make this a priority
4. Emitters reluctant to share information on what they emit and often do not want to know
5. Penalty for regulation infraction is a disincentive to treat
6. Project realities rarely match government policy/regulations, which reduces effectiveness
   - Substandard technologies win contracts
   - Emissions equipment is ‘shut-off’ or ‘fails’ within one year
   - Enforcement agencies are not resourced to enforce

Economic Framework

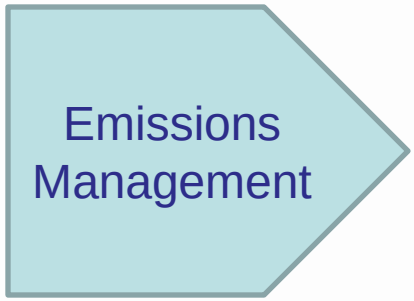
Market Drivers
1. Regulatory Framework
2. Permitting Process
3. Process Engineering
4. Analytical Functions

Commercial Engines
1. New technologies
2. Engineering firms
3. Knowledge economy
4. Creating value/jobs
5. Monitoring/Validation

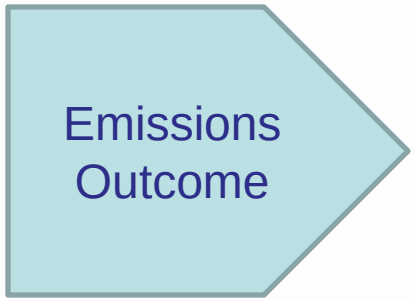
Outputs/Benefits
1. Economic wealth
2. Carbon Credits
3. GHG mitigating energy
4. Performance Results
5. Inspection Services



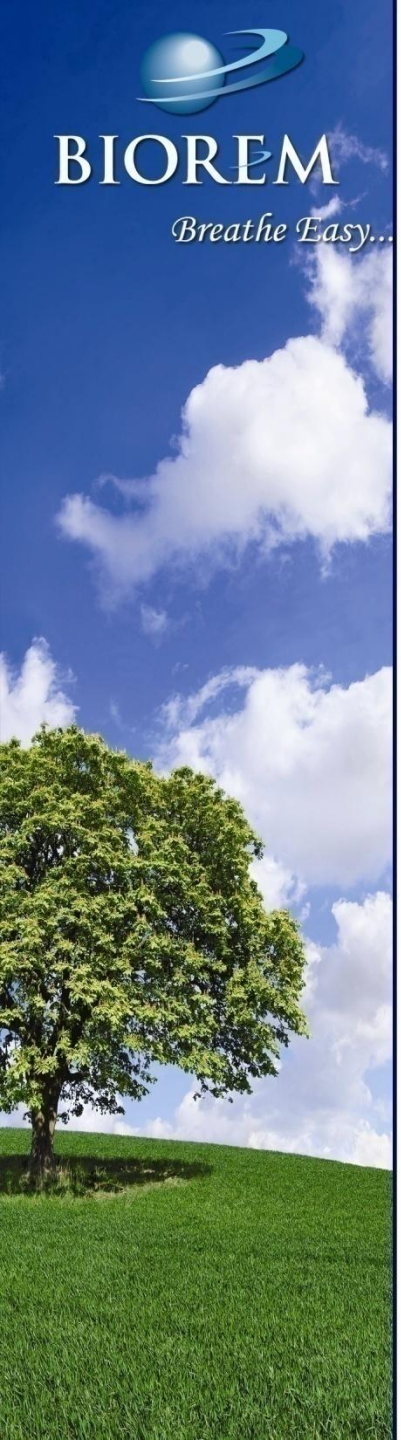
1. Chemistry
2. Temperature
3. Concentration
4. Particulates
5. Energy Value



1. Biological
2. Plasma
3. Ultra Violet
4. Precipitator
5. Energy Recovery
6. Optimization
7. Purification
8. Hydrogen Conversion
9. Others



1. GHG reduction
2. Energy converted
3. Outlet limits
4. Cost mitigation



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