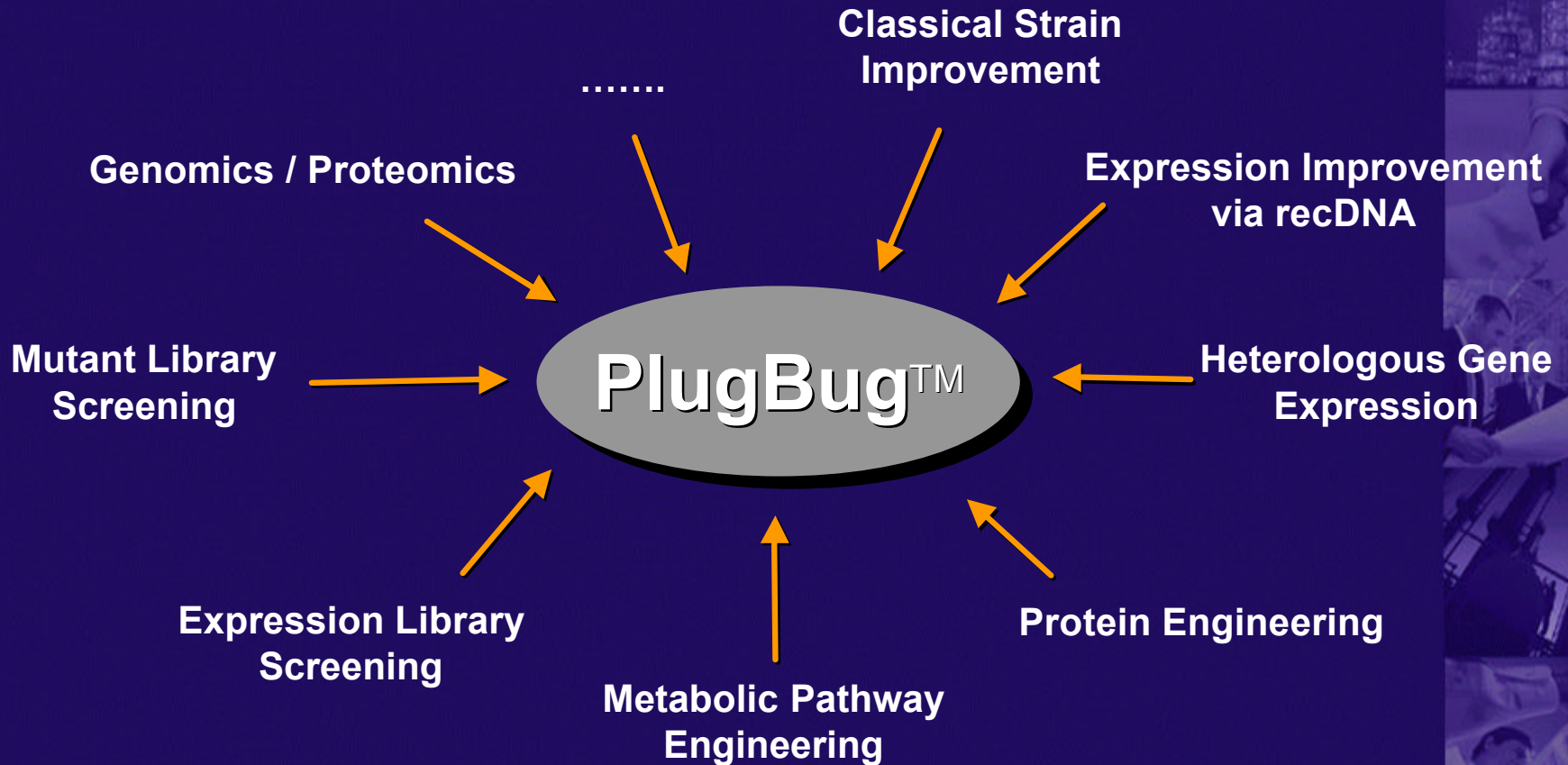


DSM - PlugBug™ Concept

- **Maximizing Research & Production Efficiency by Limiting Number of Production Microorganisms**
 - Molecular Biology expertise
 - Fermentation experience (300 L, 4 m³, 10 m³ @ Delft, 25 m³ @ Capua)
 - Proprietary positions (*A. niger*, *K. lactis*, *P. chrysogenum*)
- **Current PlugBugs™**
 - *Escherichia coli*
 - *Streptomyces lividans*
 - *Bacillus subtilis*
 - *Pichia pastoris*
 - *Saccharomyces cerevisiae*
 - *Kluyveromyces lactis*
 - *Penicillium chrysogenum*
 - *Aspergillus niger*

DSM PlugBug™: The Central Theme



Use of PlugBug™ in research ensures later large scale production!