



Better biology, Better planet.

Helping integrate biological based solutions to build a better and more sustainable world by scaling-up tomorrow's technologies today.

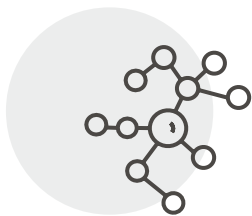
More companies than ever are leveraging biological based technologies to meet today's needs and tomorrow's challenges. From the food we eat, to the materials we wear, biotechnology continues to play a more critical role in each of our daily lives.

Black & Veatch's NextGen Ag team is the ideal partner to de-risk and bridge the gap between science, research and development, engineering and manufacturing. Our expertise rests in our collaborative R&D process and ability to optimizing existing facilities, designing and building new ones and integrating emerging technologies.

We are equipped to handle the entire process from start to finish or wherever you are in your journey. From process and development to engineering through the design and construction of a pilot scale or commercial manufacturing facility. We focus on de-risking these business operations improvement efforts, so you can stay focused on what you do best knowing BV NextGen Ag has you covered.



BLACK & VEATCH



Services Offered

Black & Veatch NextGen Ag is your trusted partner, from the initial planning stages through start-up and beyond. We have the flexibility to meet your needs through a range of service offerings. No matter where you are on your journey, we can help get you to where you want to be. Our services allow clients to focus on their business and what they do best and rely on our deep infrastructure expertise to de-risk the project and delivered the desired result time and time again.

Project Financing

- Financial modeling and project development
- Independent engineering evaluations
- Turnkey asset development

Planning

- Project definition and master planning
- Feasibility studies
- Site selection & condition assessment

Sustainability Solutions

- Sustainability assessments including energy, water and operational efficiency audits
- Leadership in Energy and Environmental Design (LEED) certification

Safety Solutions

- Plant and Employee safety consulting
- Current Good Manufacturing Practice (cGMP) Regulation Consulting
- Track and trace

Design and Engineering

- Complete facility design, engineering and municipality integration
- First of a Kind Product (FOAK) Scale-up & innovative technology implementation
- Project, program, and risk management
- Bioreactor specification and sizing

Packaging Systems

- Material handling systems
- Integrated packaging systems
- Primary and secondary packaging

Process Design

- Process design and engineering with emphasis on hygienic/sanitary design
- Pilot plant scale-up
- Fermentation/bioprocess scale-up

Controls and Automation

- Automation Systems Programming and Integration (PLC and HMI/SCADA Systems)
- Data Collection & Downtime/OEE Analysis; Enterprise Systems Integration (MES/ERP)
- Network design, security, and remote access

Construction

- Sub-contractor procurement
- Construction and safety management
- Project controls

Startup and Commissioning

- Vertical startup
- Commissioning, Qualification, and Verification (CQV)
- Operator and maintenance training

NextGenAg

For more information contact us at
bv.com/nextgenag.

