

**Chemical Engineering of Cannabis for Investors:
Presenting both an introductory and in depth view**

The emerging cannabis industry is an excellent opportunity to apply proven techniques that have been successful in the scientific and engineering communities to insure repeatable, credible, and sustainable success throughout system scale up. The art of making great products must be blended with rigorous methods and data based decisions to deliver consistent quality and performance. As the demand grows and financial investment pours into the cannabis space, how should investors evaluate opportunities to determine where to invest and how to insure their investments are on track.

Evaluating opportunities in this emerging industry requires an understanding of the science and engineering that makes it all work. Much of the science of cannabis has been focused on the development of the various agricultural aspects of the grow. The conversion of the field stock into consistent quality consumer products requires any diligence effort to be acquainted with the terms, principles and basis. The due diligence effort also needs to have depth. It is important to know when and where to turn to find credible resources to further the exploration and development of opportunities.

Investors need tools to understand the details for evaluating innovative and entrepreneurial emerging medical marijuana chemical engineering ventures which would include the aspects of production, extraction, separation, and analysis of both flower and infused products of many forms.

Any diligence effort must identify, analyze, and solve challenges that are presented in understanding the relationships between the technical and financial metrics when evaluating the investment.

Money is made by evaluation and understanding of the mass and energy balance and its effect on both the CapEx and OpEx. The mass and energy balance is the tool that in one place presents in one place the cost dashboard and specifications that brings together both the chemical engineer and the non-chemical engineer.

We teach the methodology of the iterative evidence and develop the questions required to support the financial models of the investment. Specific tools enable any investor to be confident that they are asking the right questions. Strong focus is placed upon understanding measurements and data. The financial connections to the physical system measurements apply statistical analysis to know the quality of the information upon which decisions are made.

The talk and workshop topics only differ in the depth of detail presented.

1. Follow the Money – Understanding the Cash Flow from The Mass and Energy Balance
2. Metrics, Measurements and the Quality of the Data
3. The Evidence to Support CapEx and OpEx Models
4. The Costs and Performance of the Basic Unit Operations
5. The Stage Gate Method
6. Less is More – The Exponential Complexity of Too Big a Team
7. Safety as The First Priority – And Understanding Its Cost
8. The Investors Dashboard
9. The Calibration of the B.S. Meter