



INTELLIGENT SOLUTIONS FOR FORMULATION SPECIALISTS.



CLEARVU FOR FORMULATIONS™ | TRANSFORMATIONAL SCIENCE FOR SUPERIOR PRODUCTS™

DESIGNED FOR YOUR INDUSTRY

PREPARED FOR YOUR PROBLEMS TODAY AND TOMORROW

READY TO GIVE RESULTS NOW

Are you in the best position in the market? Can you sustain your competitive advantage? Here's a quick test to help you answer these questions:

- Can you deliver new products to market faster than your competition without breaking the bank?
- Can you reduce or eliminate non-value added costs?
- Can you increase your market success rate?

ClearVu for Formulations™ is a solution that helps organizations like yours achieve and maintain a superior market position through the application of innovative scientific techniques. Incorporating this advanced solution into your product development cycle allows your organization to introduce new, highly successful products into the market while reducing non-value added costs and maintaining your quality.



INVESTIGATE

EVALUATE

CHOOSE NUTECH SOLUTIONS

DATA GATHERING AND ANALYSIS

- Turns experimental knowledge into explicit corporate knowledge
- Leverages consumer feedback of product and quality performance

DATA MODELING USING RULES

- Uses patented technology to turn data into intellectual assets
- Allows experienced knowledge experts to gain insights and confidence in the system and think outside of traditional realms
- Generates knowledge in rules based model from non-linear, subjective and objective experimental data

PREDICTION

- Cuts the expense of experimentation
- Improves each round of experimentation with predictive models
- Increases confidence by cross validating results

SIMULATION

- Reduces time-to-market
- Allows quick "what-if" analysis on range of alternative formulations

MULTI-OBJECTIVE OPTIMIZATION

- Maximizes across multiple objectives that you define
- Reduces or eliminates non-value added operational costs by creating optimal mixture of ingredients for existing portfolio or for new products
- Increases quality in manufacturing processes while lowering costs through multi-objective optimization
- Increases market success rate due to self-adaptation of model to evolve high quality solutions
- Speeds design cycles through reduced experimentation compared with Design of Experiment approaches

VISUALIZATION

- Examines the set of optimal alternatives for multi-criteria optimization
- Creates two and three dimensional diagrams of non-linear models
- Illustrates the boundaries of the results to develop further understanding of other possible solutions via sensitivity analysis

FACING THE CHALLENGES

PINPOINTING THE PROBLEMS

LAUNCHING THE SOLUTION

Product-oriented businesses are challenged to continually turn innovative ideas into marketable products. Successful products must meet or exceed consumers' demands for performance, quality and human sensory evaluations.

Performance is a key to the long term success of any product and is often the main differentiator with the competition. There is usually a tradeoff between level of performance and cost of a product. Staying ahead of the competition means finding higher performing product formulations while reducing cost.

Product quality is determined by many factors starting at the design specification and ending at the consumer experience. Maintaining optimal quality requires understanding the complex interactions between the variables that you can control and those that you cannot.

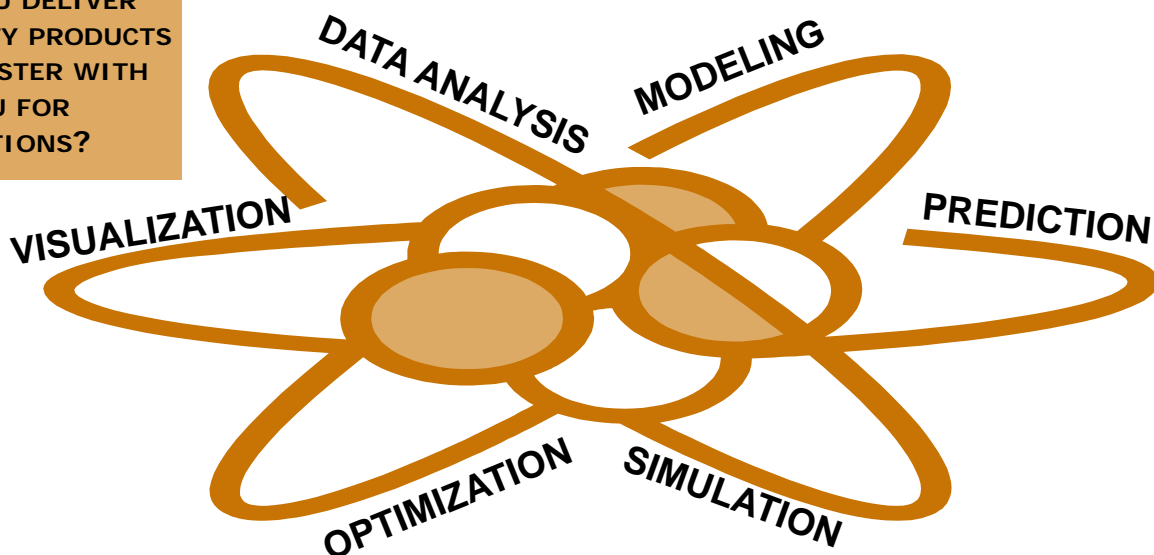
Dealing with human sensory experiments can be one of the most expensive aspects of new product development. Designers must work through many cycles of testing and refining to find that perfect texture, fragrance, taste or style.

Combining human expertise with an advanced design optimization tool can greatly decrease the cost of product development by reducing the time required to find the best sensory experience.

Forward thinking businesses use ClearVu for Formulations, NuTech's solution for product formulation and design. This tool allows formulation specialists to rapidly produce new products that exceed current quality and performance standards while reducing cost. ClearVu for Formulations utilizes powerful self-generating computer models and evolutionary multi-objective optimization techniques to produce human readable rules that will leverage and enhance your expert knowledge.

ClearVu for Formulations capability to automatically generate formulation models and to output those models as human readable rules is highly unique in a field where statistics are the standard. Evolutionary multi-objective optimization techniques work like a team of highly skilled human experts to find the next best formulations possible. Combined, these capabilities put ClearVu for Formulations in a league of its own for rapid product development and quality improvement.

HOW CAN YOU DELIVER HIGHER QUALITY PRODUCTS TO MARKET FASTER WITH CLEARVU FOR FORMULATIONS?



AT THE END OF THE DAY

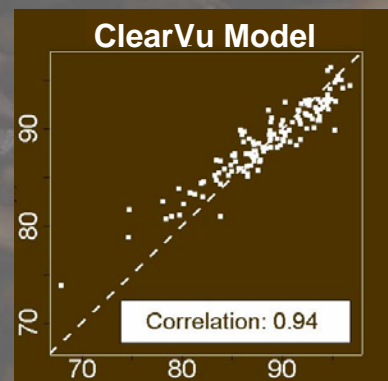
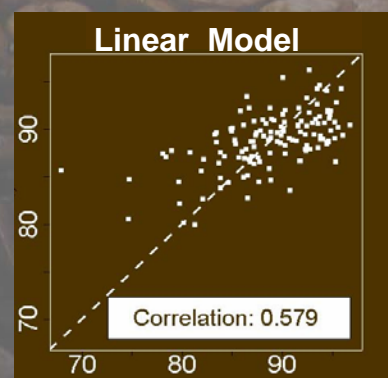
RESULTS

THAT IMPROVE YOUR BUSINESS AND MARKET POSITION

Statistical formulation models often have limited predictive value because they are unable to capture the way raw materials interact. Advanced techniques such as neural networks can produce improved models but are unable to explain the underlying reasoning. The models employed by ClearVu for Formulations are capable of delivering much higher levels of predictive capability and explaining the model in terms your formulation experts will recognize. The increase in model quality is often 30% - 40% better than linear models and the generated rules rapidly expand the company's intellectual assets.

Case Study: Coffee Formulation

Coffee blends are often the combination of many different beans. Once the consumer is accustomed to a particular profile, it is important not to deviate from that flavor. In order to reduce the cost of manufacturing and take advantage of seasonal availability of beans for that coffee blend, formulation specialists must find alternate blends with beans that will produce the same flavor profile. ClearVu for Formulations is able to analyze human sensory data and help optimize the cost of new formulas while maintaining the same flavor profile. Not only can ClearVu for Formulations help identify these alternative formulations, but it can do so with less experiments than are required by Design of Experiments methods. This results in the least expensive ingredient mix with the best performing formulations.



RESULTS FOCUSED

RESULTS DRIVEN

LET US WORK WITH YOU TO DRIVE RESULTS TODAY!



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