Automation in The Food Sector

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Automation Tech 2004

Outline

- Food business emerging trends / challenges
- Nestle Business drivers and key initiatives
- Nestle automation strategy and the challenges
- Benefits leveraged from automation solutions
- Feedback and way forward

Food Industry - *emerging trends & challenges...*

- Food Safety & Stricter regulatory norms
  - Process consistency and traceability across Supply Chain from farm to fork
  - Focus on raw material potential contaminants, foreign body management, net contents control
  - Proactive liaison with regulatory authorities with in-house know-how and competence
- Freshness of stocks
  - Taste, aroma, flavor, texture of processed food expected close to fresh stock
  - Optimum stock covers demand reliable and consistent Plant operations

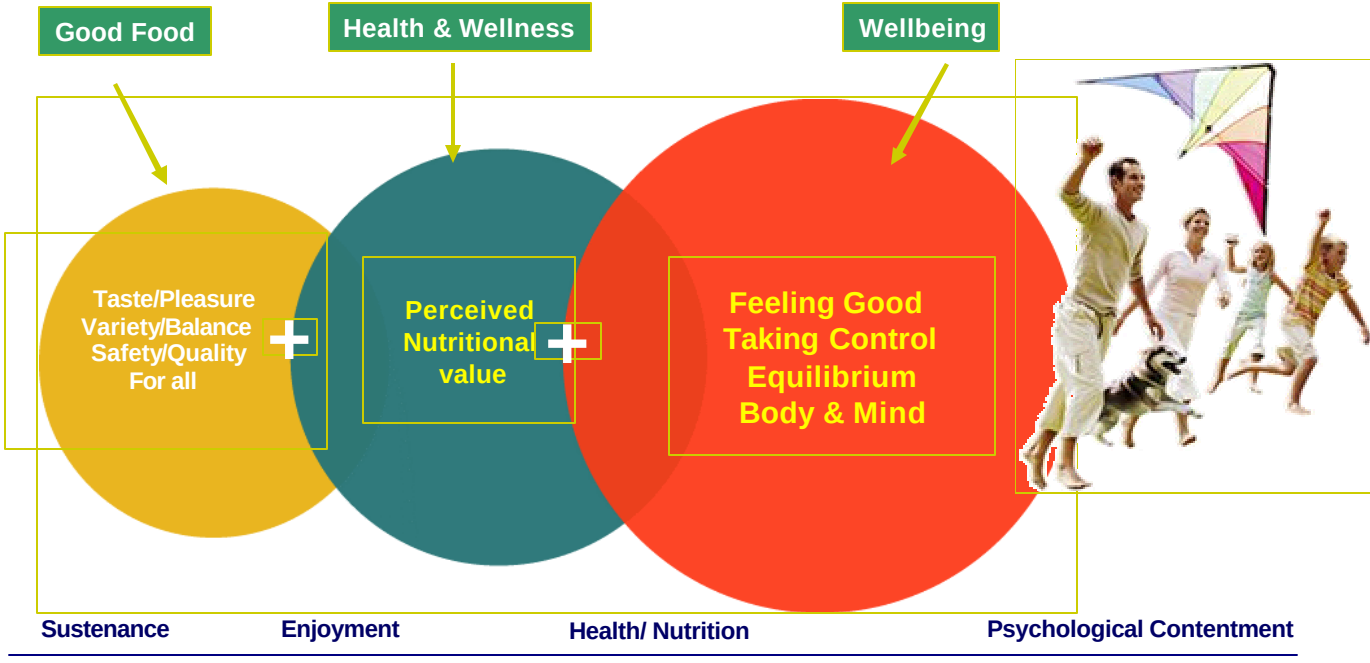
Food Industry - *emerging trends & challenges...*

- "Value for Money" first for the consumer
  - Low Cost, highly efficient & flexible operations, irrespective of business size and complexity
  - Leadership through Innovation- Renovation using R & D, market research and Consumer in-sight
- Market penetration with smaller packs, price point strategy
  - Increased input cost brings added challenge
  - Tapping market penetration with appropriate consumer communication

Food Industry - *emerging trends & challenges*...

- Discerning consumer
  - Less disposable income for food, more for consumer durables e.g. Mobile phones, cars etc.
  - Consumer education towards health- well being
- Strong hope into future
  - Food is fundamental to basic need for human masses
  - 800 million people still go to bed without food, another 1200 million yet to touch processed food
  - Need for affordable, convenient food that provide health and wellness

Evolution of Need States in Food ...



Nestlé – *globally a leader...*

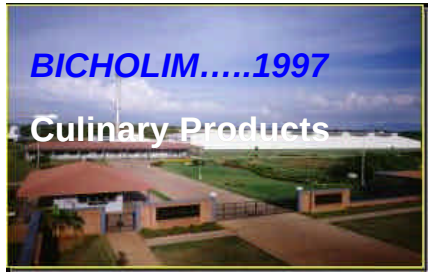
- **Established: year 1867 by Henri Nestlé**
- **Worldwide Sales: CHF 89,160 mio**
- **Factories: 511 in 86 Countries**
- **Employees: 254,199**
- **Product Brands: 8,500**

Nestle Logo, universally understood, simultaneously evokes security & affection, nature & nourishing, family & tradition.

Nestle India – partner to economic growth

- **Established: year 1912**
- **Manufacturing: Year 1961**
- **Sales: INR 22,800 mio**
- **Factories: 6**
- **Employees: 3,500**
- **Product Brands: 8,500**
- **Sales: 4 Branches, 3900 distributors and 601,000 outlets**
- **Third largest Food Industry in India**

Nestlé India - *manufacturing ...*



Global Business drivers

- *Long term Sustainable & profitable growth*
  - *Low cost highly efficient operations*
  - *Product availability whenever, wherever, however*
  - *Innovation and Renovation*
  - *Consumer communication*
- *Focus on its biggest assets: people, brands, products*
- *High quality products for health, nutrition & well-being*
- *Culture of continuous improvement*

Key initiatives: GLOBE
Global Business Excellence

Leveraging size and strength of Nestle group

- *Increased Business visibility and improved decision making across Geography, Category, Channel*
- *Leveraging purchasing*
- *Common IS/ IT network to support common best practices and data*

  » ***Through***

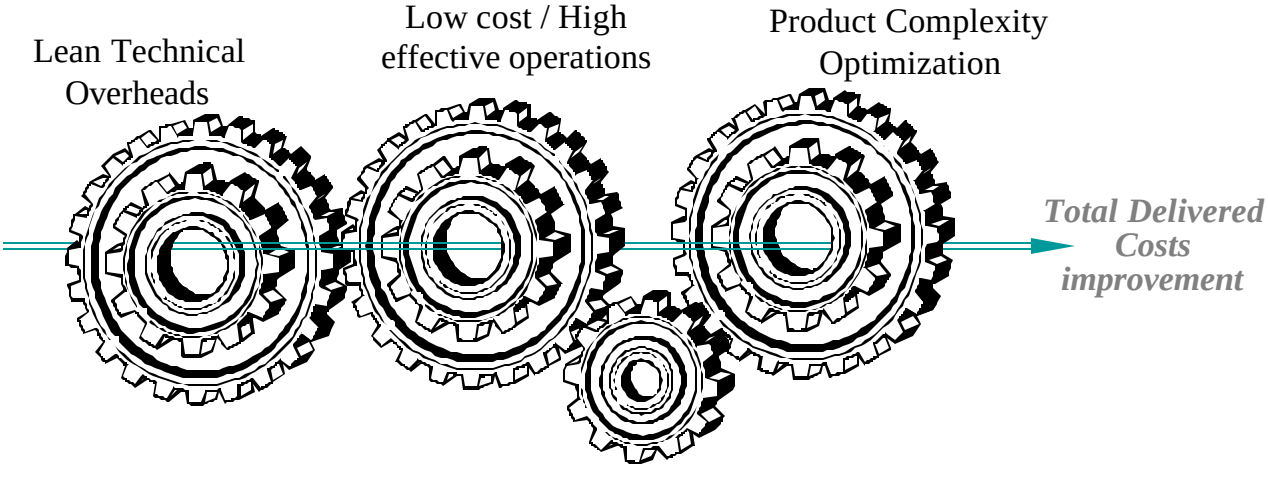
- *Creation of a Common Business Process Architecture*
- *Standardization of Internal and External Master data*
- *Standardization of Information Systems Infrastructure*

Key initiatives- *Operational Excellence*

A group-wide drive for efficiencies and Earning margin improvement

- *Application of Group best practices repository*
- *Lean technical overheads*
- *Product complexity optimization*
- *Joint Technical/ Purchasing/ Supply Chain/ Marketing effort*
- *High performing logistics and Optimized planning processes*

Operation Excellence at work



Challenge for Automation solutions…

- Process consistency
  - Optimize variances and reduced non-quality costs
  - Net content control
- Robust recipe management
  - A necessity for continuous and integrated process
  - Human error avoidance
- Traceability
  - Process conditions including CCP from HACCP
  - Lot traceability of finished product back to Raw materials
- Integrating in-line quality data for instant product release
  - Empowering line operators to take product release ownership

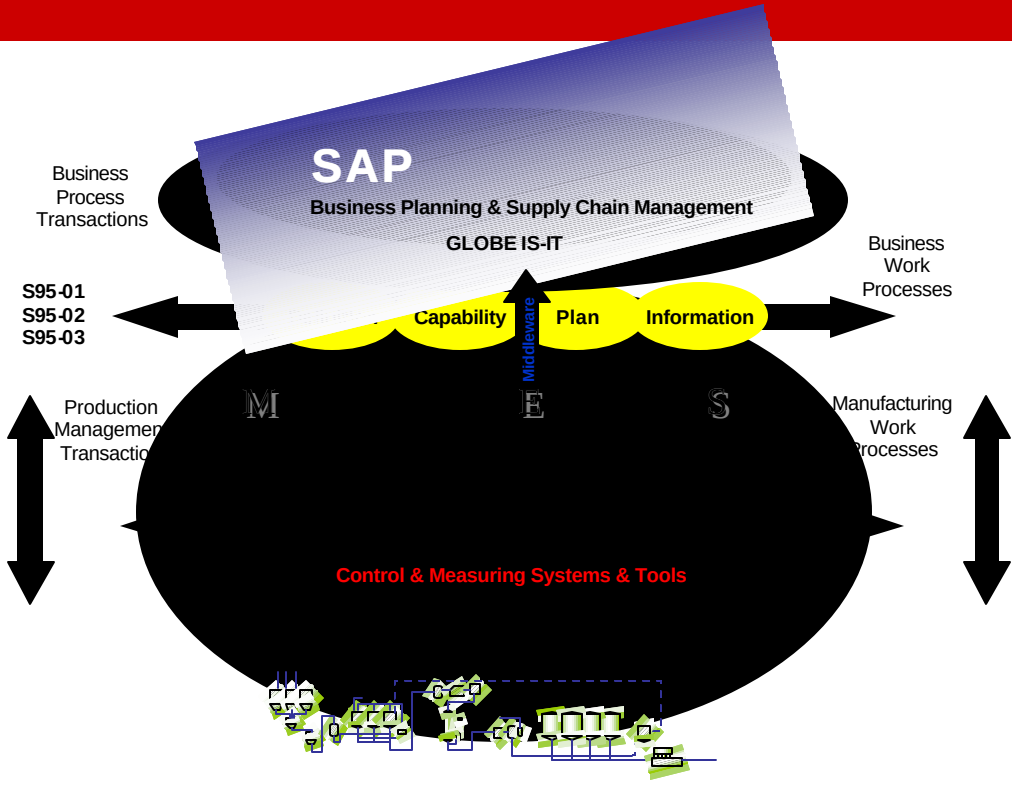
Challenge for Automation solutions…

World class plant performance

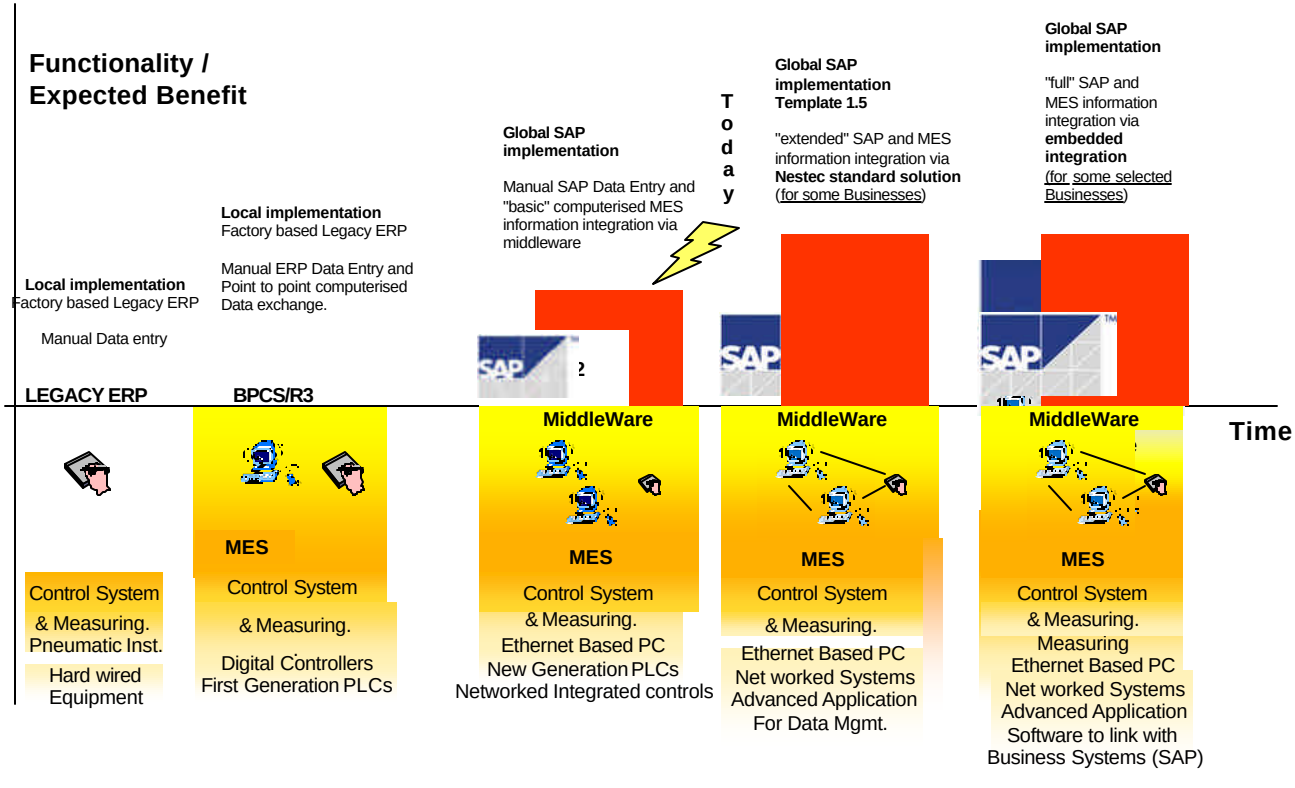
- Flexibility: “fast pit stop” changeovers mindset
- Maximized asset utilization
- Longer production runs
- Plant reliability: M&R to “Prevent, Maintain, Improve”
- Start up/ shutdown loss management- avoidance

- Productive and motivated shop floor personnel
- Energy optimization

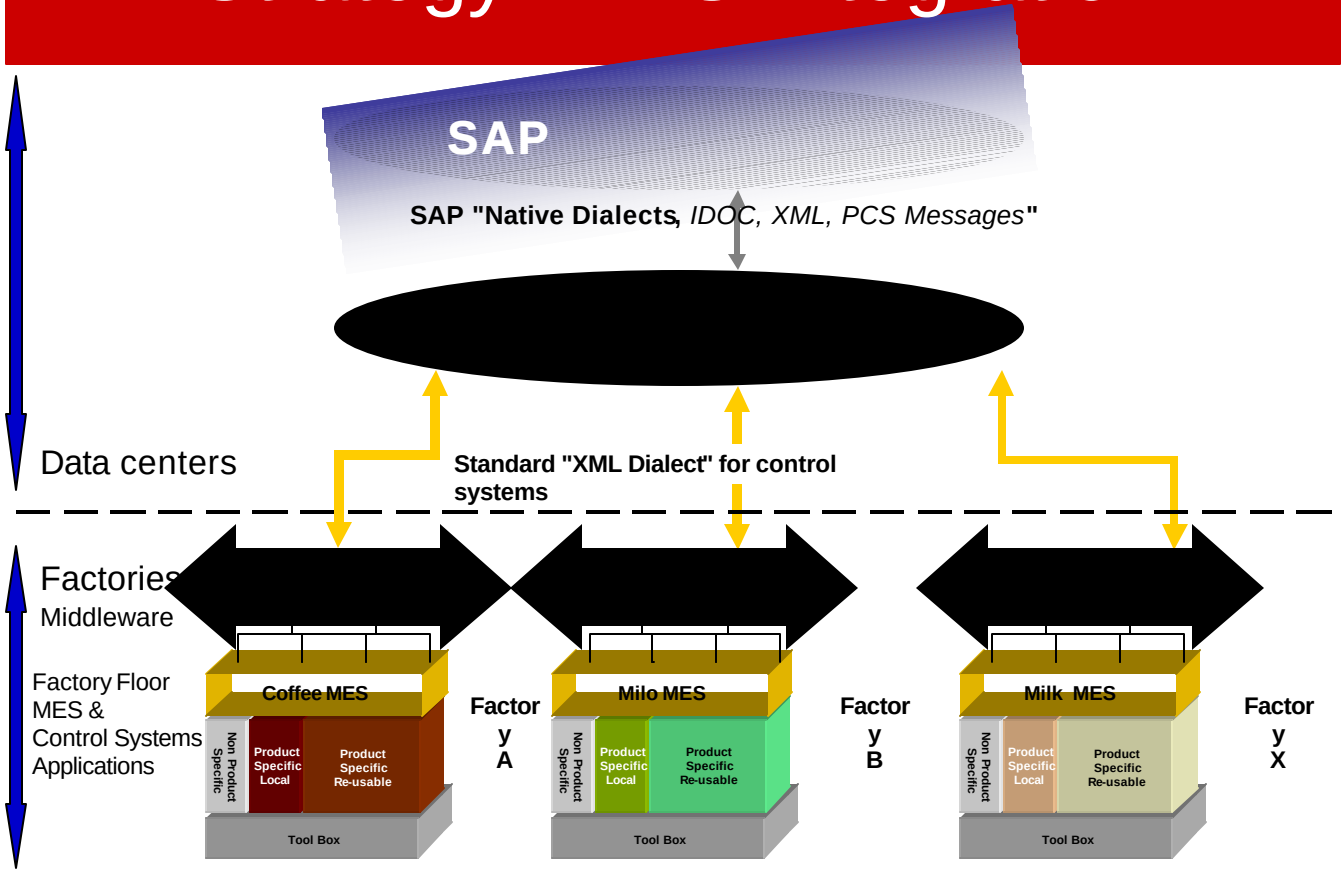
Overview Nestle Enterprise model



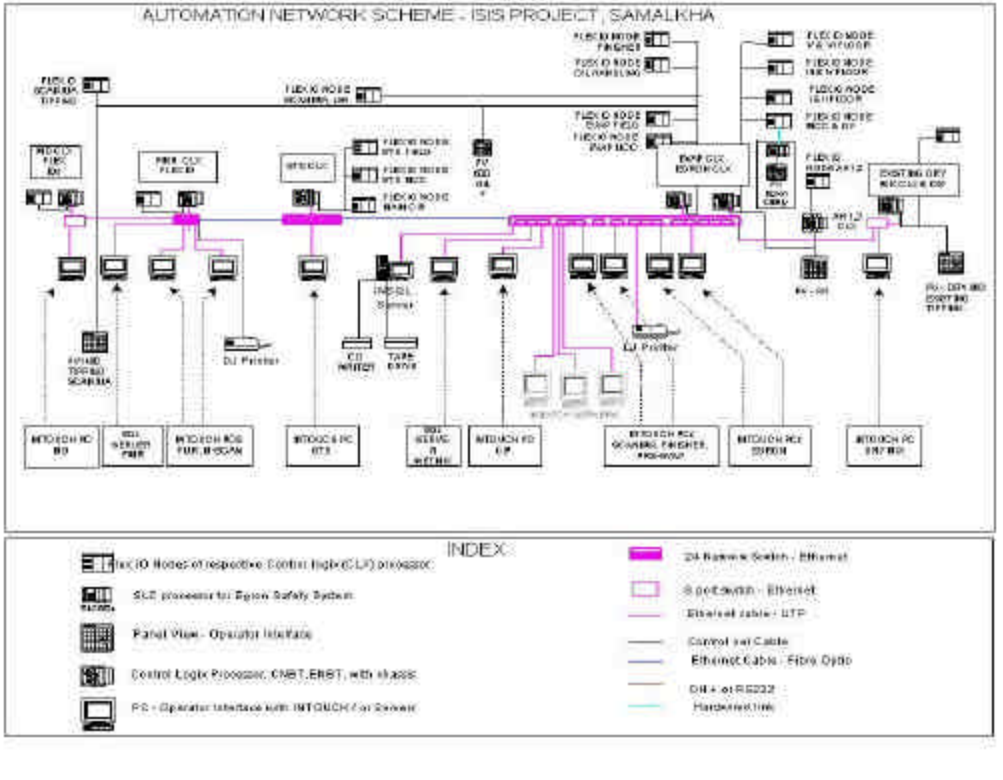
Strategy: Integration Scalability



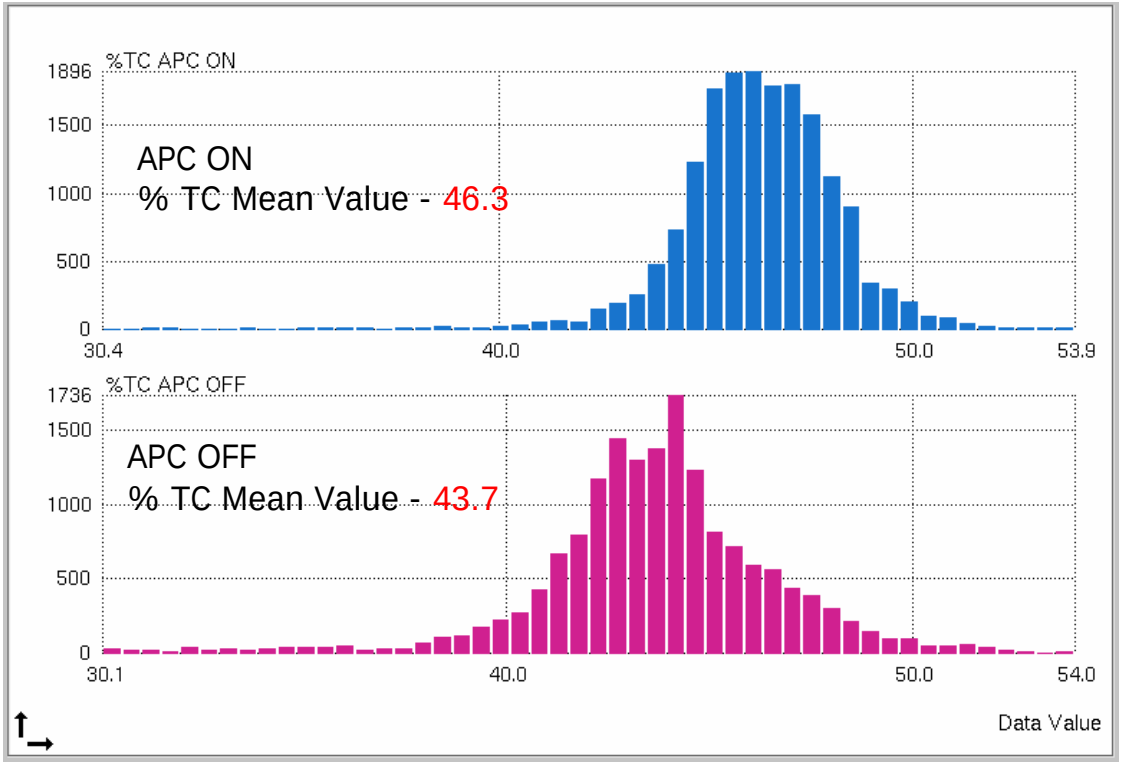
Strategy: MES Integration



Net working Process Control



Advanced Process Controls - Process consistency



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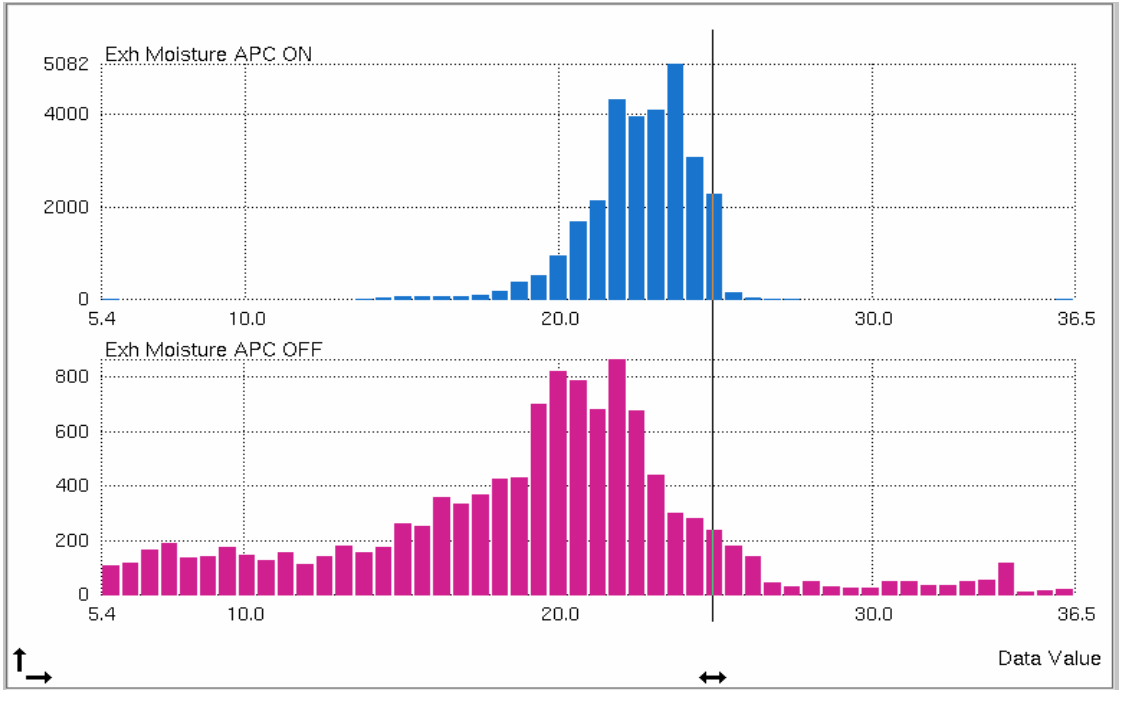
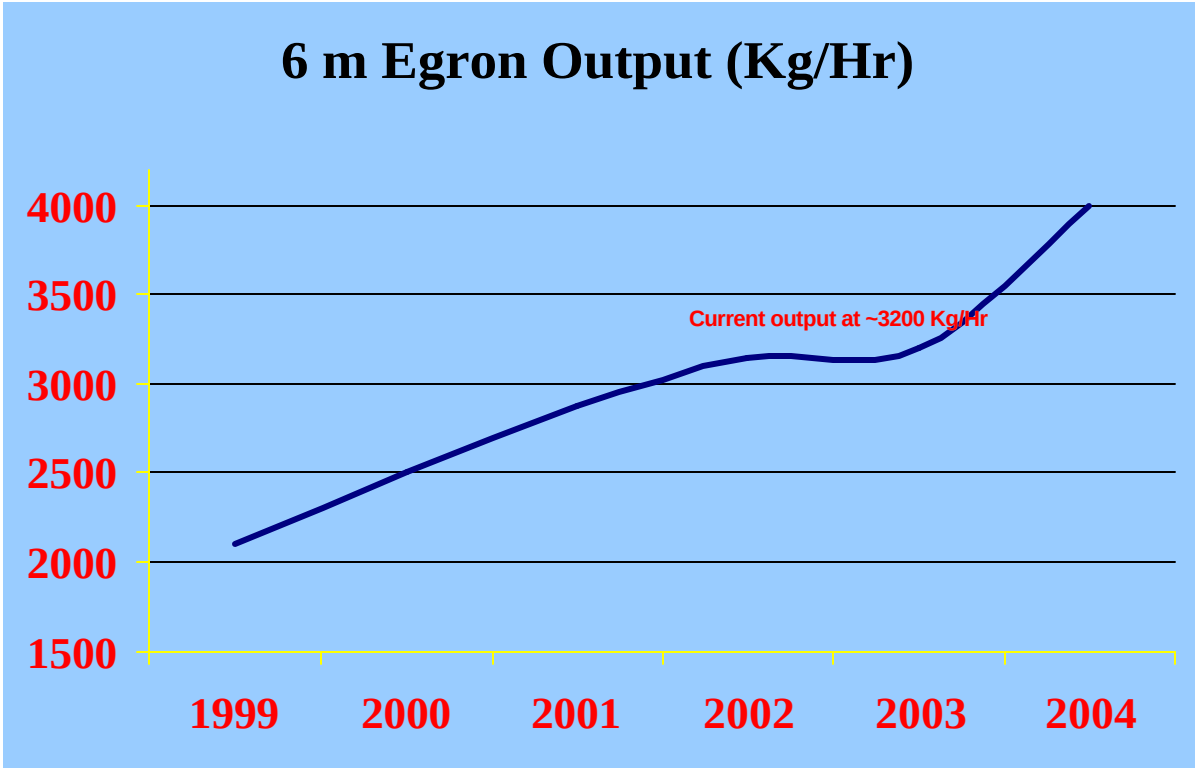
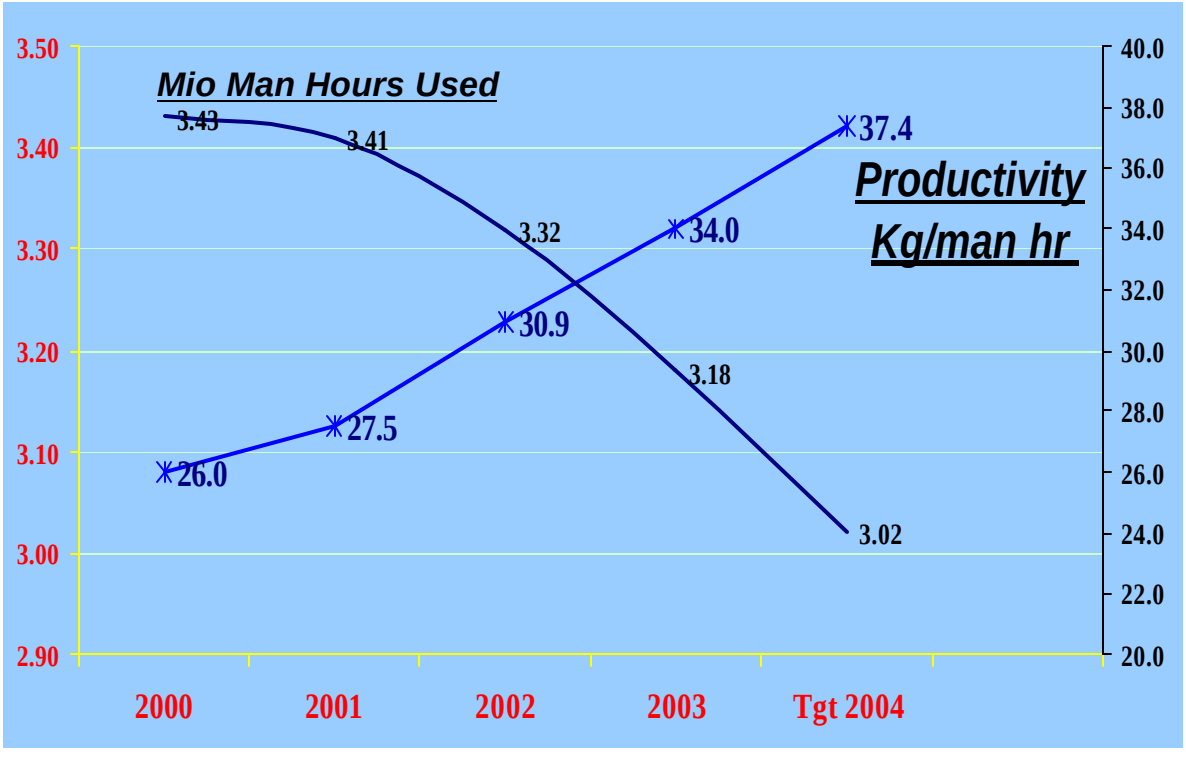


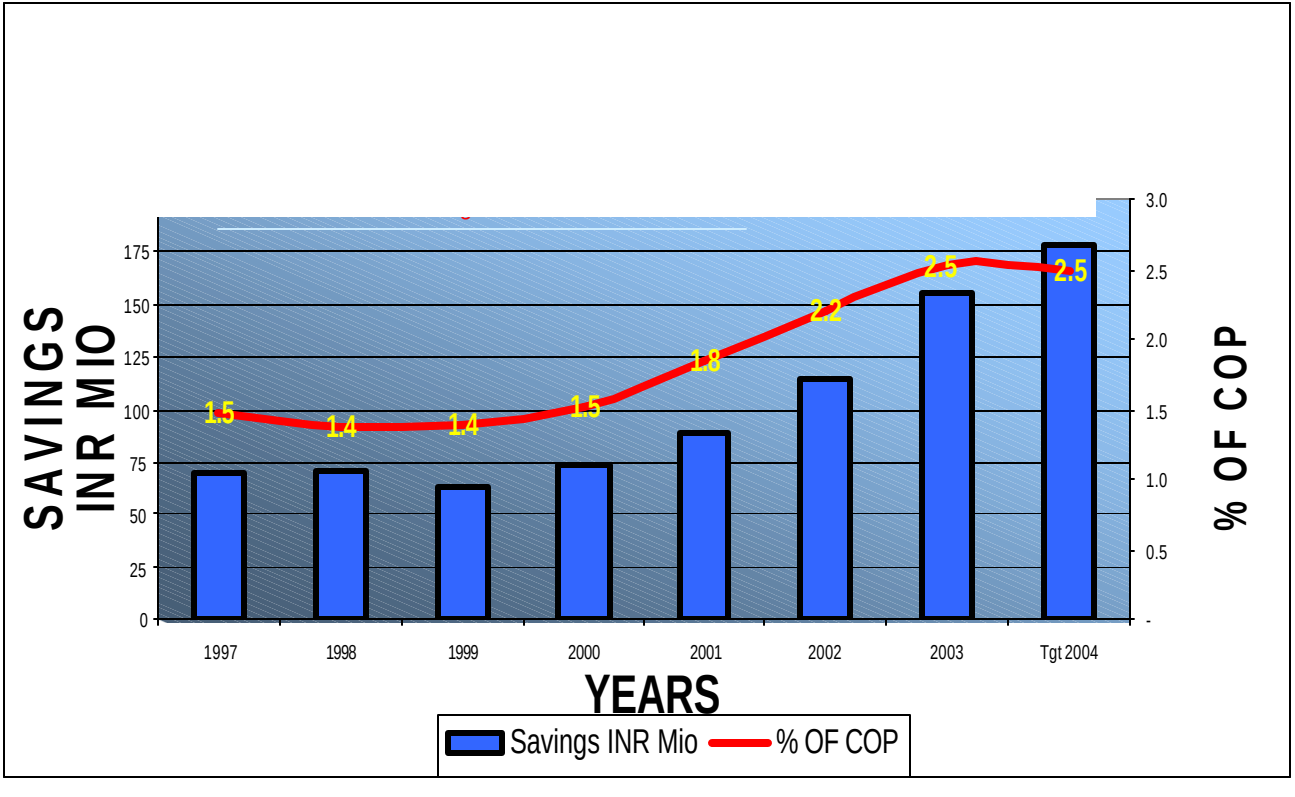
Plant throughputs



Productivity -- Increasing trends



Savings on COP



Feedback….

- End users have problem: do not demand enough….
- "No news is good news mentality"-little efforts to get customer feedback
- Complacency creeps in where business is assured
- Technology upgrade costs fortunes: systematic integration approach recommended
- Customized solutions for Food business not readily available unless jointly developed
- Little indigenous manufacturing in hardware

Way forward….

- Visit customers proactively: get feedback and improve
- Educate customer on your product: build trust
- On-going tailor-made training modules for users
- Nurture local talent for service support
- Global principles but local culture
- Ensure success for customers and you win too
- More frequent updating on new technology desired

Business Partnership is name of mutual success

Thank You !!!