DATA-INTENSIVE WORKFLOWS:
LEARNINGS & CHALLENGES

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IT ALL STARTS WITH THE CONSUMER...

2bn consumers worldwide use a Unilever product on any day

53% of sales in emerging markets

Products sold in more than 180 countries

More than 50 years experience in Brazil, China, India and Indonesia
THE COMPLEXITY OF SOAP MAKERS HAS BECOME COMPARABLE TO THAT OF THE AIRLINE INDUSTRY...

The FMCG product’

One portfolio: >700 thousand specs across all Categories with 25% of these changing per annum

The ‘Traditional Product’

One product: 4.5 million parts, 75 thousand drawings
Design new experiment

Patentability, cost & availability

Computing analysis

Test efficacy

Criteria match
IBM Research

Unilever

IBM

built a model for liquid mixtures

coded the interface with the BlueGene/Q

A powerful supercomputer on the palm of your hand
THE VALUE OF SPEED

Best in class FMCG Companies introduce Innovations seven months faster

Resulting in 60% higher sales in first year

*BCG Report Speed to Win April 2012
OUR FORMULATION JOURNEY

1 Litre FULL Formulations Per person per day

Manual, non-standard 2 - 3

Manual, standardised, 5 - 7

In silico 1000’s

Automated, 25
TO DRIVE SPEED TO MARKET FURTHER WE NEED TO LOOK END-TO-END

- Computer Aided Formulation
- Optimiser Engines
- Virtual Packaging Design
- Virtual Process Engineering
- Factory Line Optimisation

New materials, Simple Mixtures, Product Formats, Full Formulae, Manufacture, Launch