

The future of Weather Forecasters

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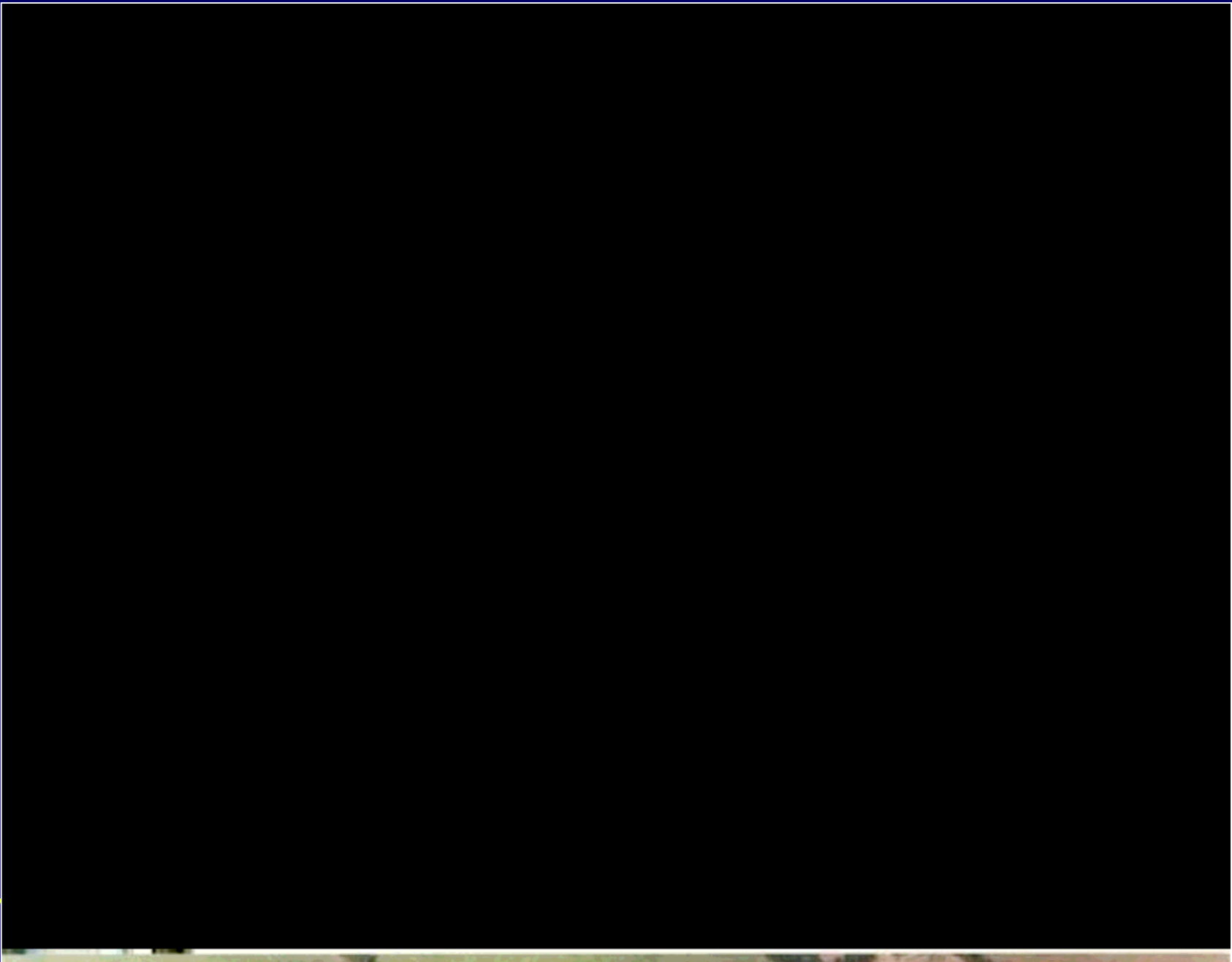
The Met Office

Outline of talk

- The Met Office at Exeter in 2003
- Quality management
- Re-engineering
- The Future of Forecasters

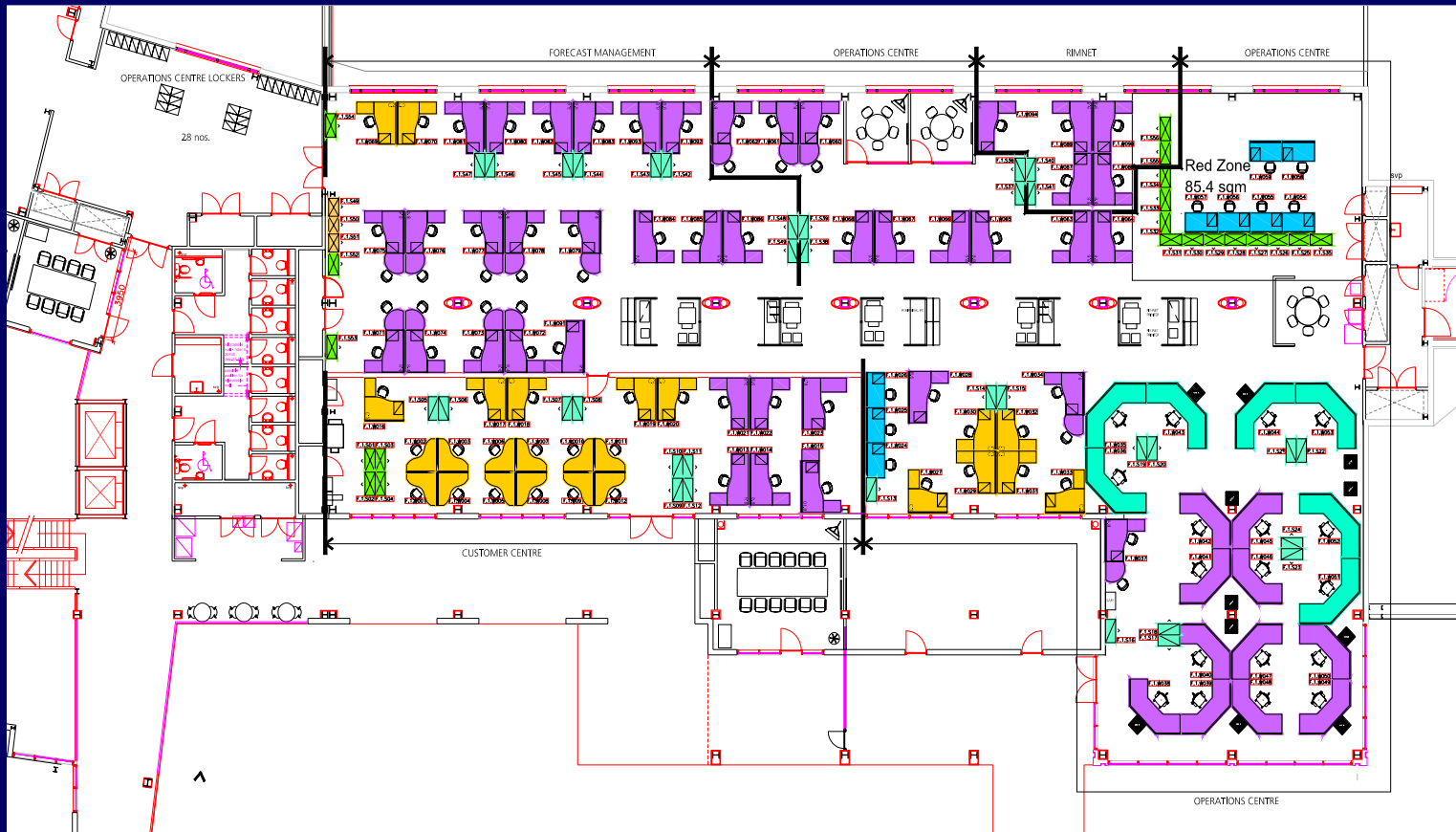
The Met Office in Exeter

(Integration of Operational Activities)

















15.9.2003 10:00



KEY - WORKSTATION TYPES
Workstations and task seating by Techo

- | | | |
|--|--|---|
|  3.4 sqm workstation - 9 Nos. |  6.75 sqm workstation - 14 Nos. Config. 9 |  9 sqm workstation - 7 Nos. Operations Centre |
|  6.75 sqm workstation - 26 Nos. Config. 5 |  6.75 sqm workstation - 1 Nos. Config. 2 |  5 sqm workstation - 12 Nos. Customer Centre |
|  6.75 sqm workstation - 1 Nos. Config. 7 |  6.75 sqm workstation - 11 Nos. Operations Centre |  5 sqm workstation - 16 Nos. |

Key - Storage Types
Storage by Dovetail

-  1.3h Storage unit - 33 Nos.
-  1.9h Storage unit - 21 Nos.
-  1.8h Security Storage unit - 3 Nos.

Operations Centre



Key challenges in creating the Operations Centre

- To establish an Operations Centre that will deliver major benefits to the organisation well into the future through the integration of operational activities.
- To move the emphasis from production to quality management

View of Operations Centre in the next 5 to 10 years

- All operational activities fully integrated
- Operations Centre delivering from a re-engineered (simplified) production process.
- Engine for Change and Growth
- Quality management of largely automated production

Quality management

(Moving the emphasis from production to quality)

Internal Quality

- Manual production
- Semi automated production
- Automated production

External Quality

- Customer gets what they want, how they want it, when they want it
- Business continuity focus on delivery to customer rather than making sure that computers or links work

Re-engineering Programme

(Simplifying the production process)

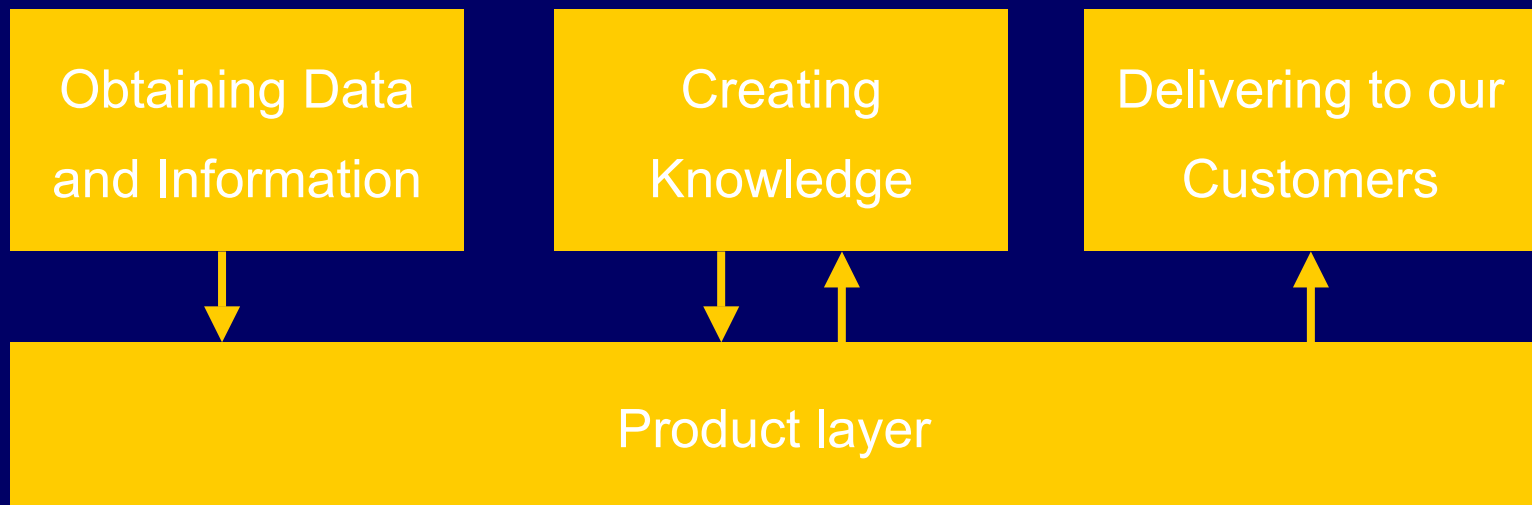
Why are we doing it?

- To reduce the costs involved in the supply of products and services to customers
- To improve our responsiveness & flexibility in meeting new and changing customer requirements.

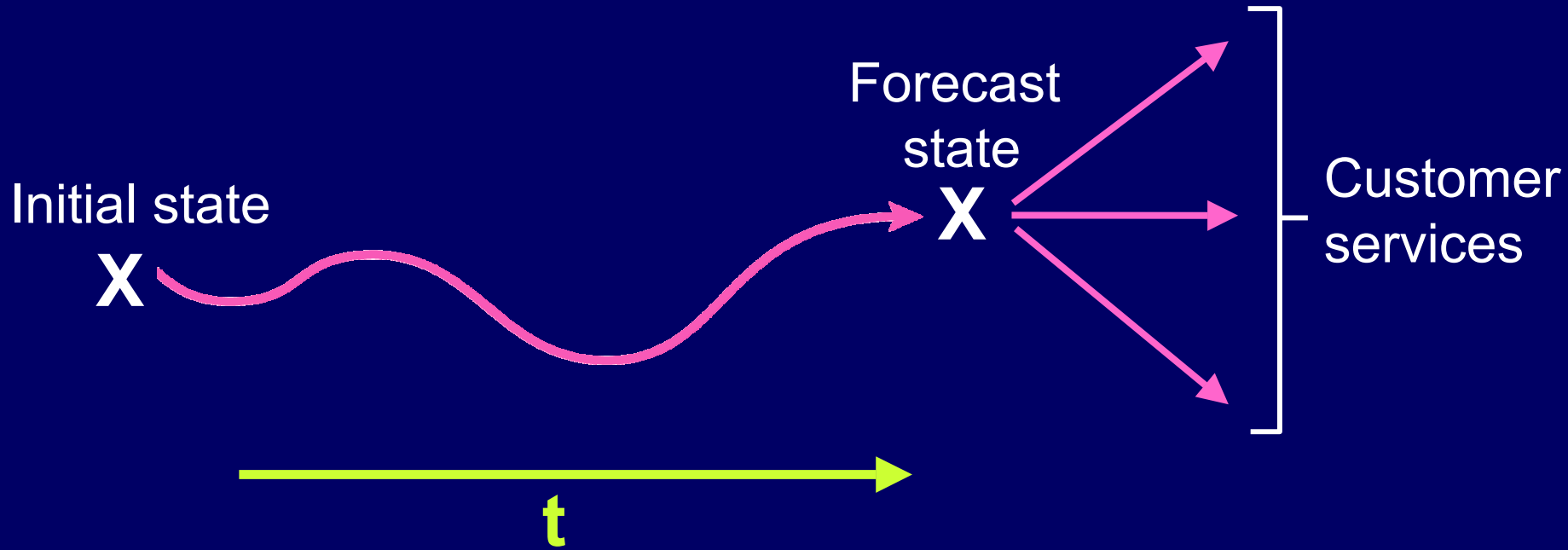
Aims of Re-engineering

1. To introduce greater flexibility & scalability into the production process.
2. Deliver 20% cost savings from FY2002/03 baseline production costs of £65.5m.
3. Redeploy resources into new capability and revenue generating roles.

The New Production Process



This replaces the current Observations, Forecasting and IT processes
Concentrates on the different stages where value is added.



Change once use many (Eddy Carroll)

- Allow modified information to be available in downstream production
- OSFM or Yes/No, making best use of resources
- Increase automation
- Measure benefits through measuring impacts

The future of Forecasters

(A quiet revolution)

Forecasters

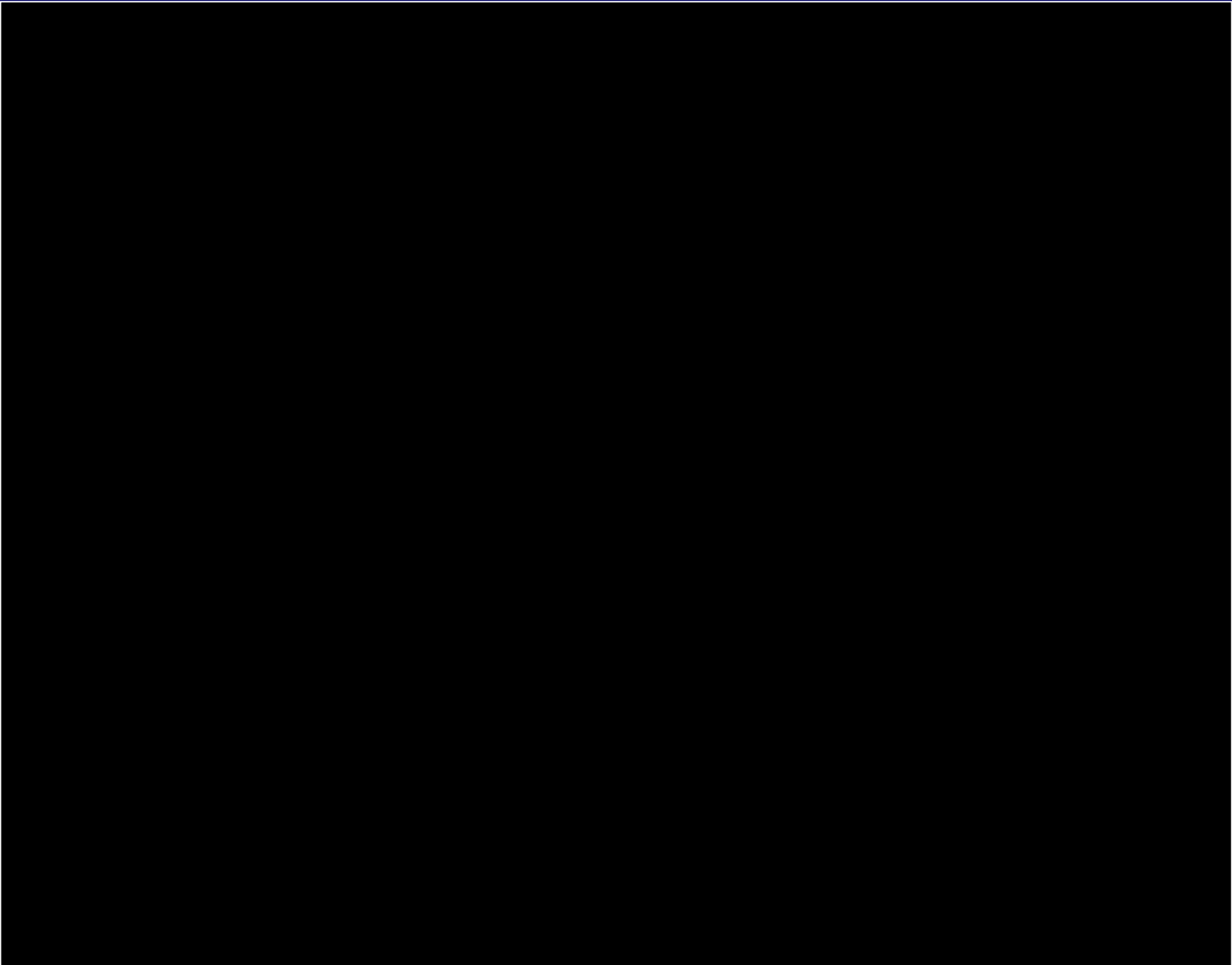
- Forecaster Consultants
- Guidance Forecasters
- Quality management
- 50/50 Forecasters

Forecaster, Consultants

- Develop increased knowledge of the customer
- Help the customer understand the Met Office
- Increased understanding of sales and marketing
- Increased use of problem solving skills

Guidance, short period

- For short period Graphical rather than text, using modified fields based on UK model to achieve use once change many
- Use modified fields for automated product creation



T+ 6 VT 06Z THU

T+ 9 VT 09Z THU

T+ 12 VT 12Z THU



Guidance, Medium Range,

- Move to more probabilistic guidance (short range as well?)
- Move to automation of guidance both probabilistic and most likely deterministic solution (First Guess early warnings, Ken Mylne on Tuesday).
- Do this using all available model runs

Ensembles

- Recent work with poor mans ensemble have demonstrated useful skill
- Ensembles of ensembles look very promising
- Increasing use of ensembles in short term
- Tension between very high resolution models and ensembles in the short term

Quality management

- Some real time, modify the product and then send.
- Near real time, identify bug or minor development need, fix next day(s).
- Longer term, identify future development needs

50/50 Forecasters

- Time split between forecasting and other activities
- Mainly chief forecasters at moment, but in future most forecasters.
- Mainly with R&D at the moment
- Example Eddy Carroll who is speaking next on 'On Screen Field Modification'.

Future Benefits to Organisation

- Simplified logical production process
- Faster to Market
- Better Control of Business Continuity Incidents
- Better Control of product quality and consistency
- Enables a move towards greater automation

Future Benefits for Forecasters

- Greater variety of work, ability to focus on meteorology or customers
- Less routine work
- Greater integration within organisation