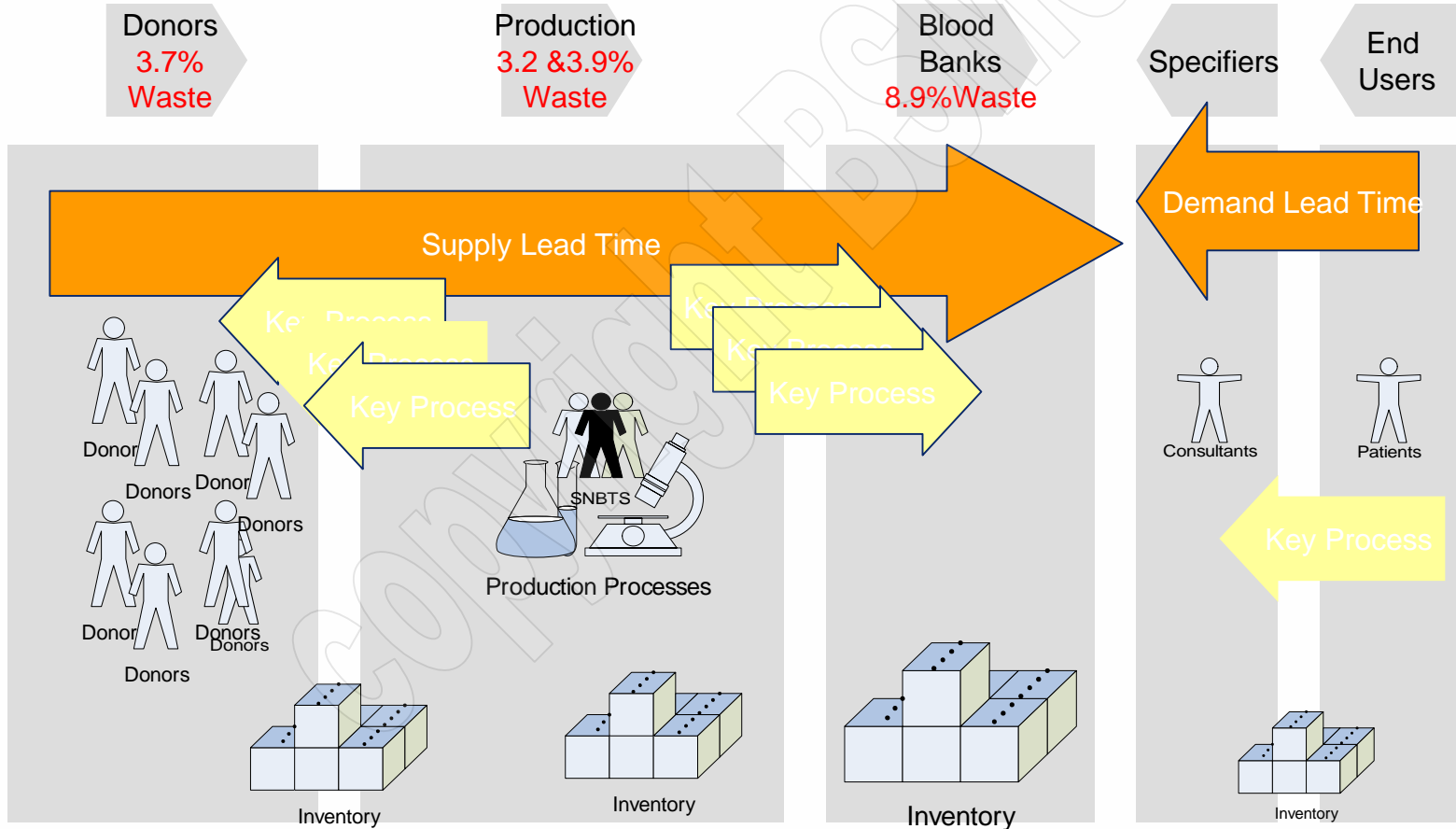


# Blood Express - 2 arm approach

- **Hard Issues**
  - Logistics/New Models VMI & KANBAN
  - Forecast Planning /Supply and Demand
- **Soft Issues**
  - Communications
  - Change Culture
  - Service Redesign
  - Education

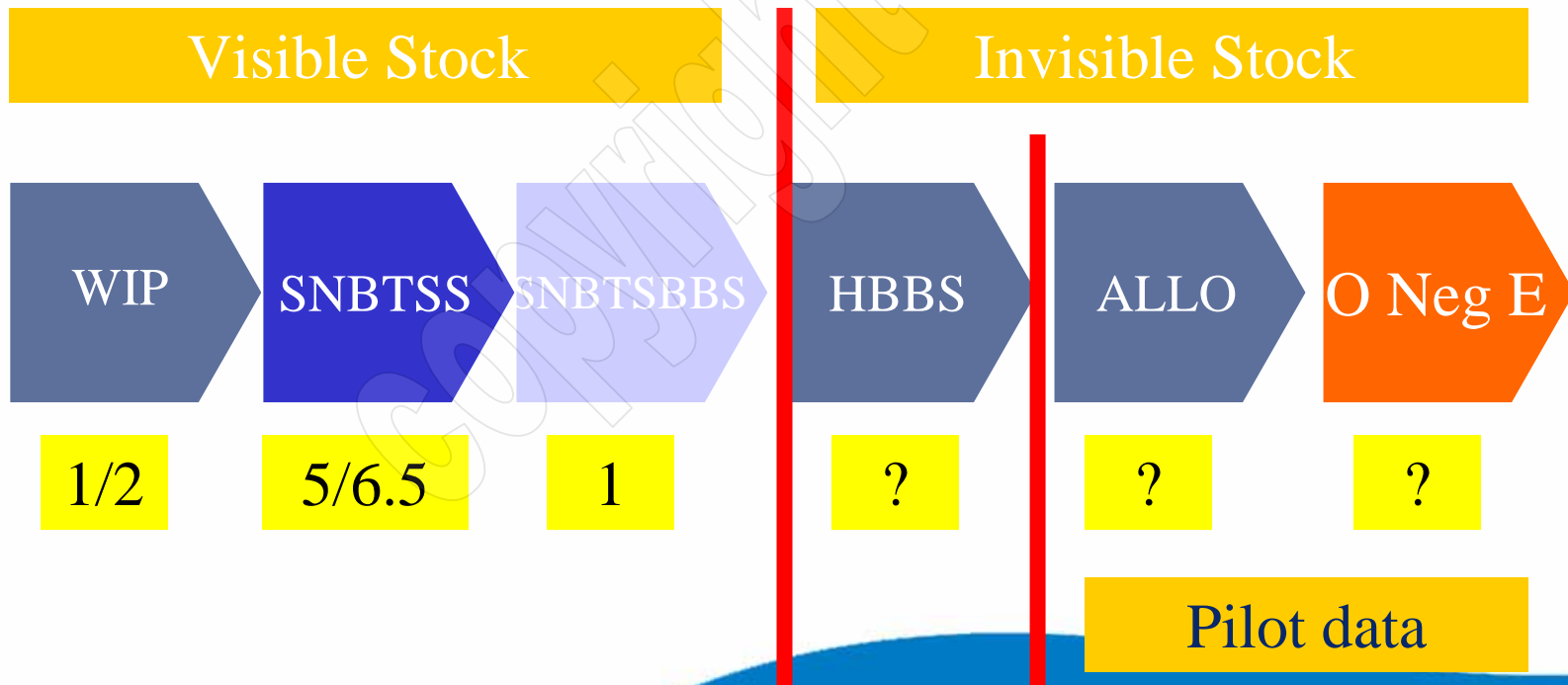
# SNBTS Supply Chain Workshop



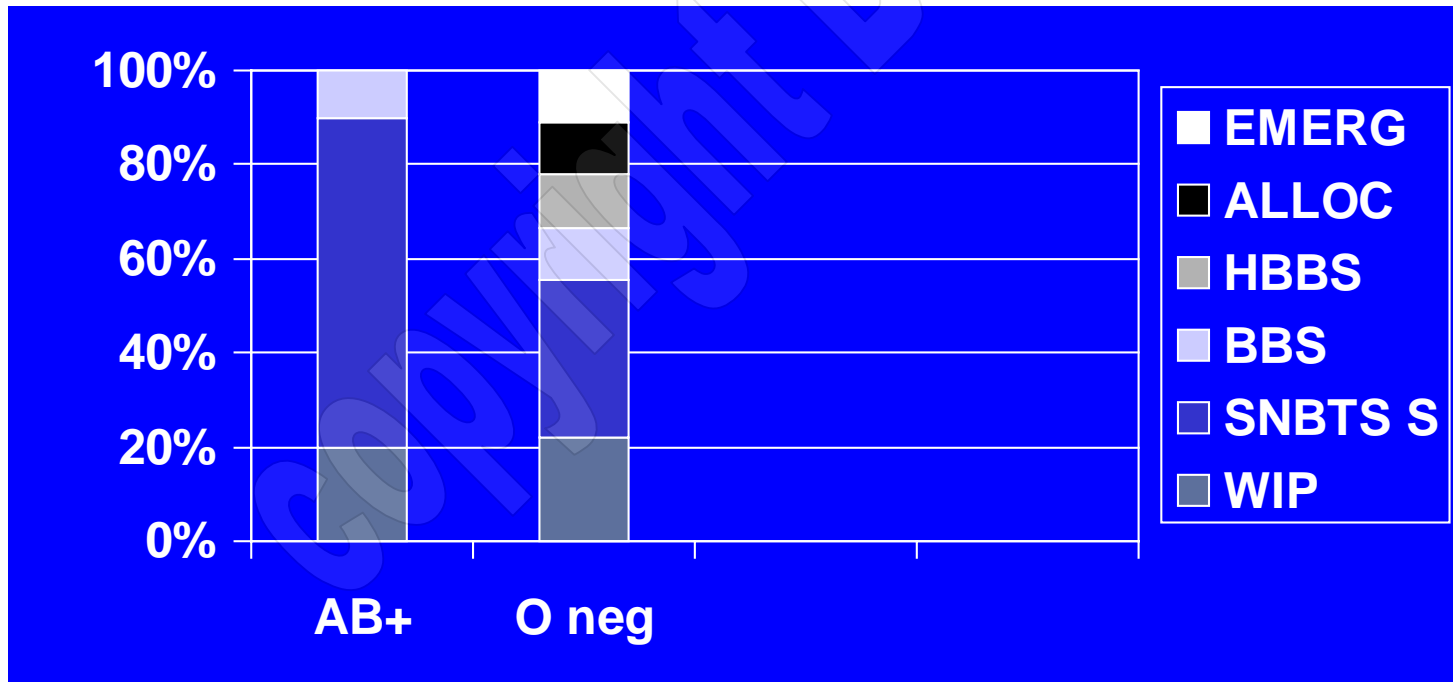


Hospital	Sep	Feb	Hospital	Sep	Feb
Glasgow Royal Infirmary	Yellow	Green	Monklands	Green	Green
Stobhill	Red	Green	Wishaw General	Green	Green
Western Infirmary	Green	Green	Hairmyres	Green	Green
Gartnavel	Yellow	Green	St Johns	Red	Red
Yorkhill	Red	Yellow	Borders	Red	Yellow
Victoria Infirmary	Green	Green	Western General	Green	Green
Southern General Hospital	Green	Green	Kirkcaldy Victoria	Green	Green
Royal Alexandra Paisley	Green	Green	Queen Margaret's Dunfermline	Yellow	Green
Lorn and the Isles Hospital	Red	Red	SNBTS Edinburgh	Yellow	Yellow
Vale of Leven	Red	Yellow	SNBTS Dundee	Green	Green
Inverclyde	Green	Green	Perth Royal Infirmary	Yellow	Yellow
Crosshouse	Yellow	Yellow	SNBTS Inverness	Green	Green
Dumfries	Yellow	Yellow	SNBTS Aberdeen	Red	Green
Golden Jubilee	Red	Red	Dr Gray's Elgin	Red	Yellow
Forth Valley	Yellow	Green		Dark Blue	Dark Blue

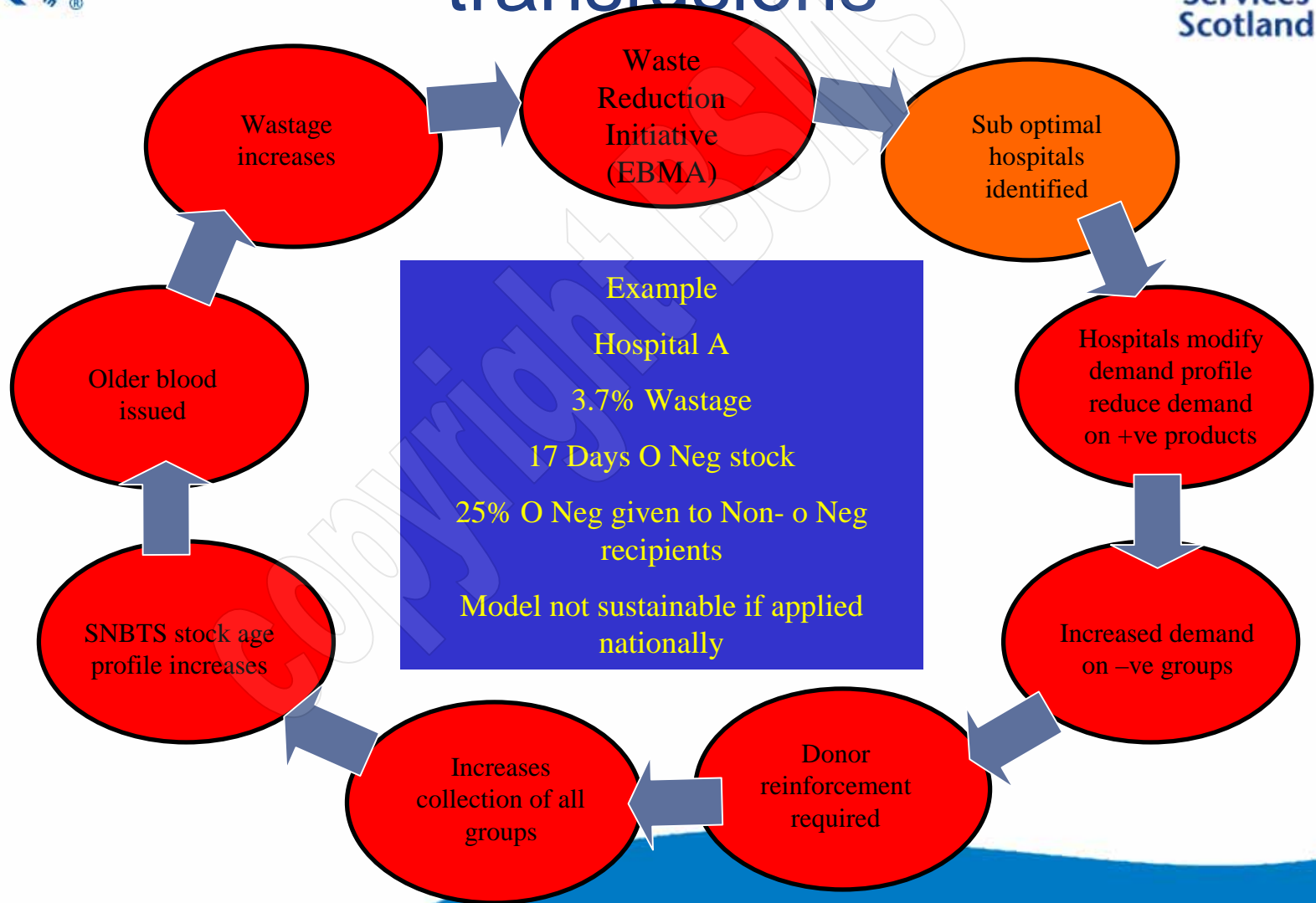
# Stock visibility



# Demo



# Inappropriate O Neg transfusions



# New Logistics model

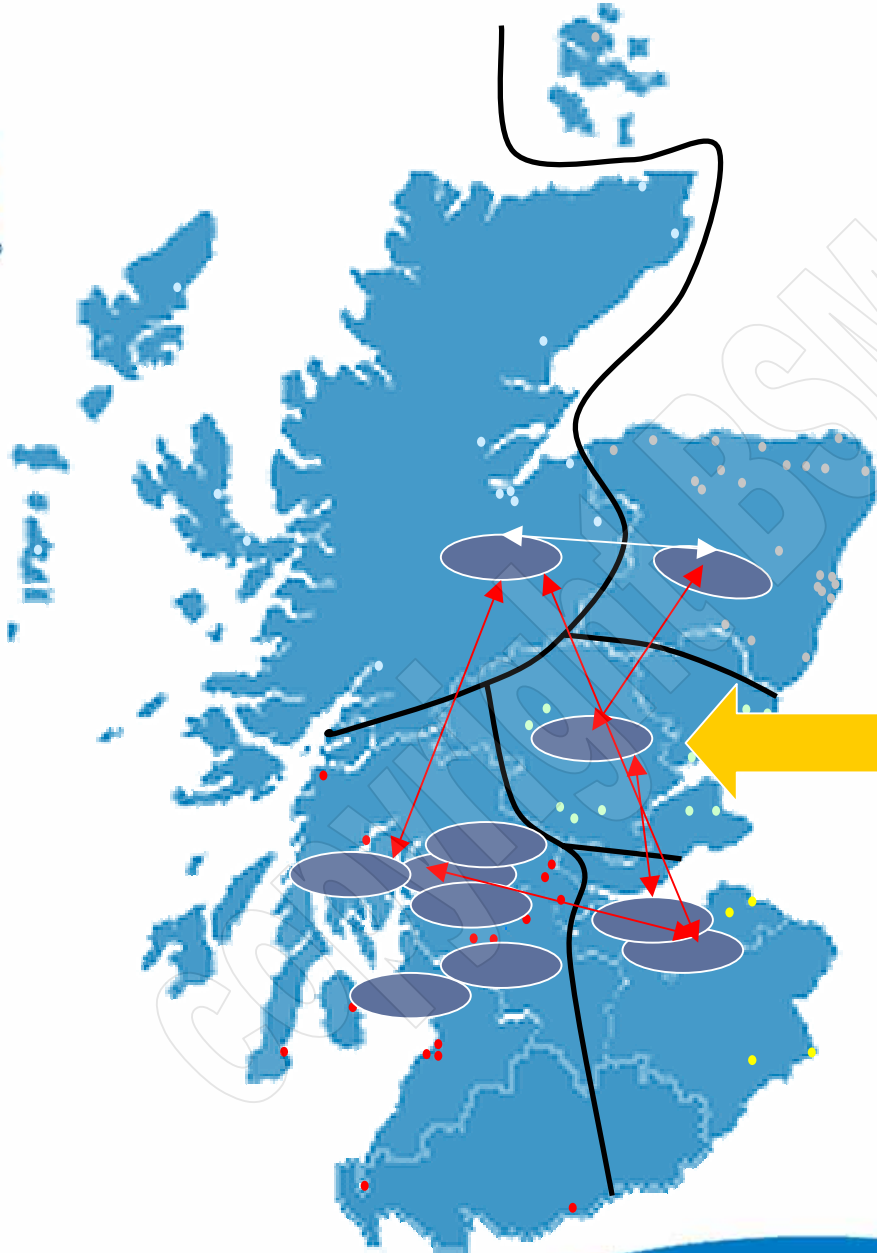
Vendor Managed Inventory (VMI)  
&  
KANBAN



Location	RBC issued Per Annum	Platelets Issued Per Annum	No of Stock Holding Hospitals
Glasgow	120,000	11,600	20
Edinburgh	63,000	8,300	6
Aberdeen	27,000	2,700	4
Dundee	20,000	1,500	2
Inverness	9,000	1,700	4
<b>Total</b>	<b>229,000</b>	<b>25,800</b>	<b>36</b>



<b>BTS Site</b> <b>Bonded stock site</b>	<b>RBC</b> <b>issued Per</b> <b>Annum</b>	<b>Platelets</b> <b>Issued Per</b> <b>Annum</b>	<b>No of</b> <b>Stock</b> <b>Holding</b> <b>Hospitals</b>	<b>Number of Super</b> <b>Users (&gt;10,000</b> <b>units PA)</b>
Glasgow	120,000	11,600	20	<i>Per health Board Area</i> 1 in A&A(14,800) 1 in Lanarkshire(17,500) 1 in Forth Valley(10,000) 1 in A&C(14,000) 3 in GGHB (36,000)
Edinburgh	63,000	8,300	6	2 Wig and ERI (37,000)
Aberdeen	27,000	2,700	4	1(27,000)
Dundee	20,000	1,500	2	1(20,000)
Inverness	9,000	1,700	4	1(6,000)
<b>Total</b>	<b>229,000</b>	<b>25,800</b>	<b>36</b>	<b>11(152,000Approx)</b>

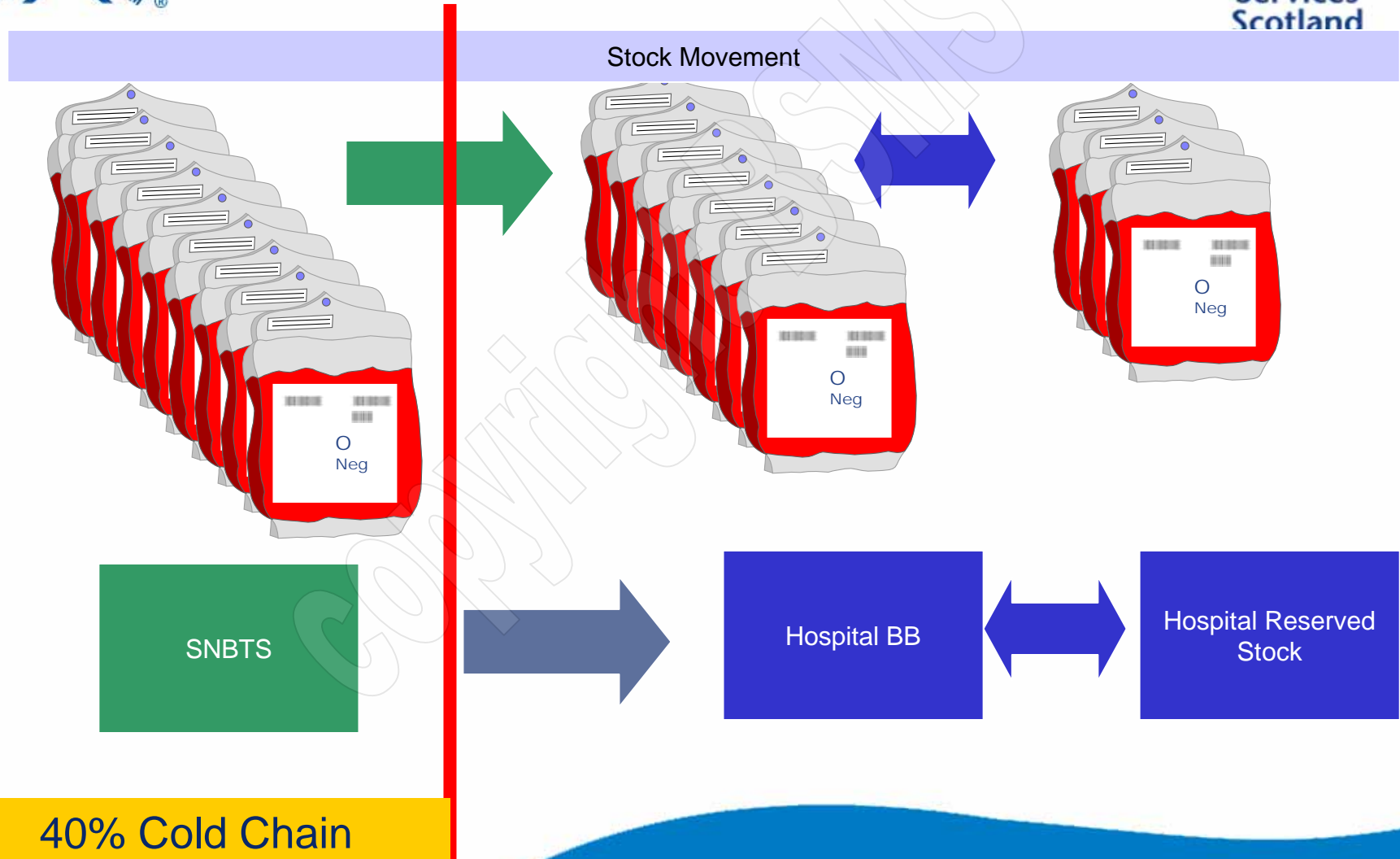


- SNBTS bonded stock
- Available at point of use
- Moveable and quality assured
- Cold chain managed
- Stock visibility

# Model 1 - VMI

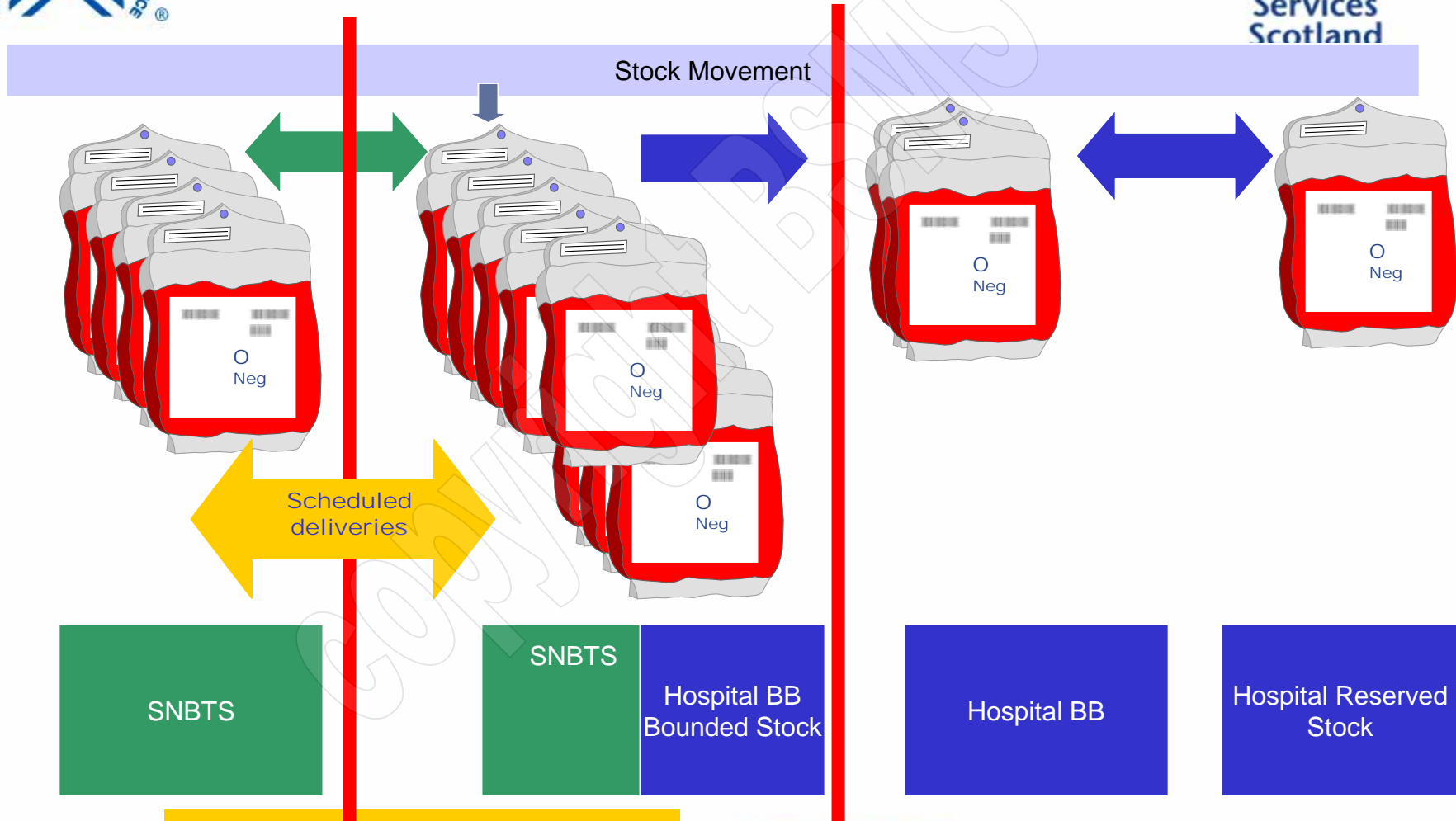
- **Super Users**
  - High volume users
    - (>10K units/year)
  - GRI, WIG, ERI, WRI, A&A, LS, A&C, FV, SG, NW, ARI/Foresterhill, Inverness
  - Introduce 'bonded stock' at point of use
  - Two fridge model at point of use
    - Fridge 1, Hospital Blood Bank, operated under same conditions as currently
    - Fridge 2, SNBTS Blood 'bonded stock' Bank, operated under SNBTS (Progesa) control

# Current Inventory model



40% Cold Chain compliant for movement

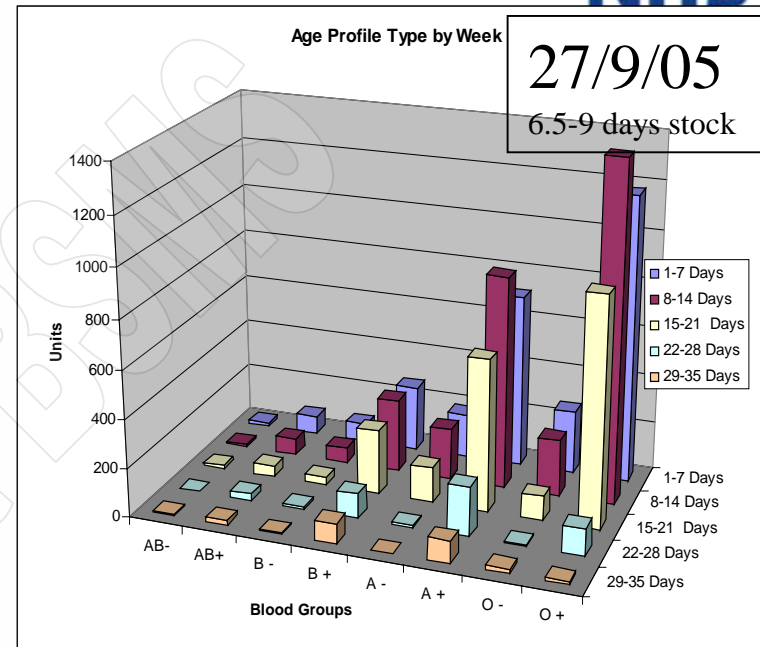
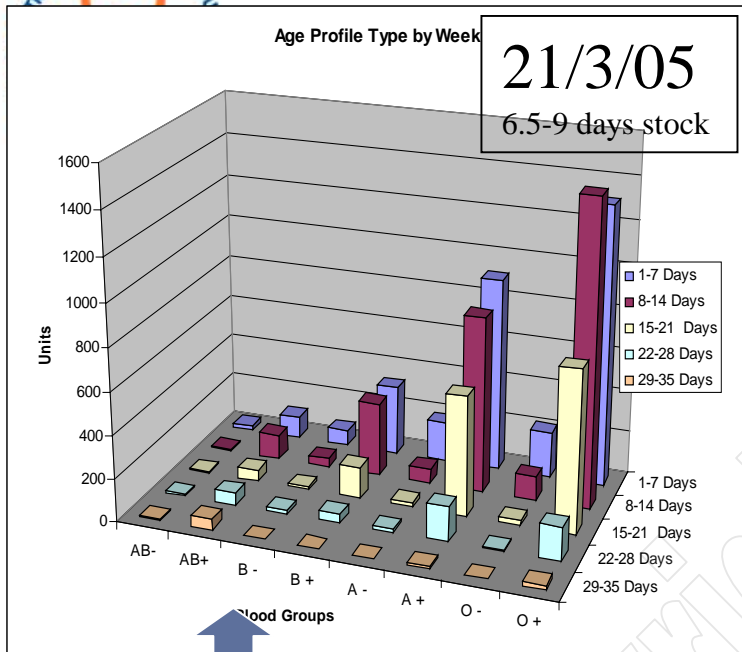
# New Inventory model - VMI



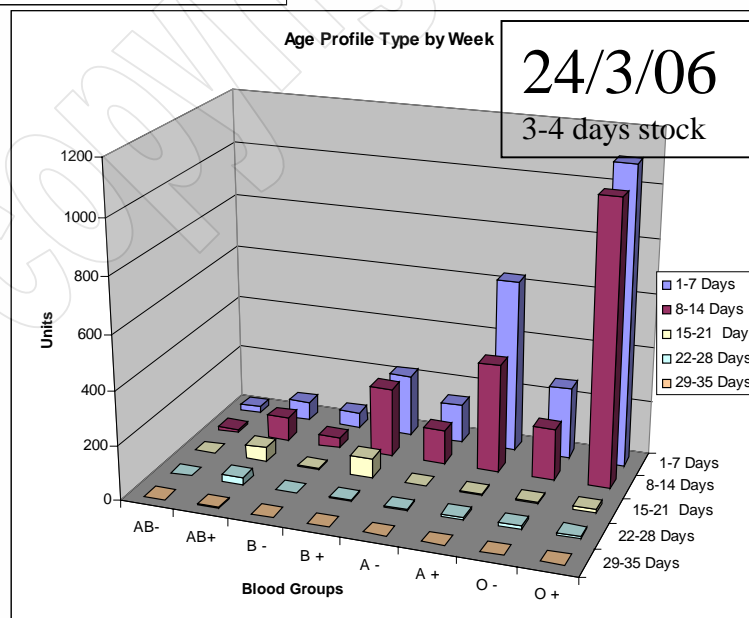
65% Cold Chain compliant for movement

## Model 2 - KANBAN

- Hospitals transfusing <10,000 units with
  - Calculate daily usage for all hospitals (< Per blood group/electronic tally for use by dispatch staff.
  - Monitor daily returns and replenish accordingly
  - Use a KANBAN stock model
  - Gather and validate further data
  - Ensure statistics cover 99% eventualities (ISD)
  - De-reservations and returns



22-35 day on shelf wastage, older stock distributed 3<sup>rd</sup>, 3<sup>rd</sup>, 3<sup>rd</sup>



FIFO





# Implementation

- Pilot idea at Blood Express day for BMS on 16 May
- 2 day working group to include Personnel from:
  - Clinical
    - Medics, BMS, QA, Laboratory Policy managers.
  - Supply chain, -
    - Donor, P&T, SNBTS Clinical BMS. QA, Logistics, CDs, Finance, IT

# Implementation cont.

- Pilot
  - Consult with MHRA
  - Choose Pilot site, high gain area(ERI & Inverness)
  - Detailed specification
  - Procurement of equipment (? Lease for pilot period or 2 PROGESA centre codes)
  - Develop Protocols /Guidelines/SOP/QA Accreditation
  - Cost pilot
  - Training and education

# Objectives

- **Maximise**
- **Our ability to match Supply and demand**
  - Stock available at point of use
  - Stock flexibility between locations
  - Stock controlled within Cold Chain
  - Stock visibility to all stakeholders
  - Consistency of operational processes
  - Emergency response capability
  - Logistics efficiency
- **Minimise**
- **Wastage**
  - Stock Surplus
  - Stock out situations
  - Stock outside Cold Chain
  - Effort in restocking process for logistics
  - Unscheduled & emergency deliveries (Blue light)
  - Blood product wastage
  - Logistics costs



# Benefits of a New Model Vendor Managed Inventory (VMI)



- **Hospitals**

- More stock at point of use
- Less wastage
- Stock Visibility
- Less Unscheduled transport , reduction in taxis
- Eliminate the need to order
- Maximum stock available for emergencies
- Limited use of blue light deliveries
- Group specific tx

- **SNBTS**

- More stock control
- Less unscheduled deliveries
- More scheduled deliveries
- Better cold chain management
- Ability to move stock
- Less emergency deliveries
- Better product traceability



# Bloods stock management Scheme



- Meeting with SNBTS, NBS, Eire, implementation programme agreed
- SNBTS Implementation
  - Group established to agree data set, definitions and Classifications for PROGESA data abstraction
  - Data abstract written and sent to MAK to assess viability
  - Final spec sent to MAK
  - Awaiting costing from MAK
  - Validation Process
- Hospital Implementation
  - SB/JC to Launch at Scotblood
  - SB to organised Online training
  - Ed and Ehsan to be trained as trainers
- Classifications of Donor, P&T, SNBTS Clinical wastage, avoidable/unavoidable



# Education



- Education day for BSM – 16<sup>th</sup> May BSMS
- Guideline/ Protocol for Inventory Management (outcome of education day)
- Online training Material in Inventory management



# Success Criteria



- Customer Satisfaction
- Reduction in wastage
- Reduction in cost for organisation
- Fit for purpose Organisation(SNBTS)
- Fit for purpose logistics
- Supply matching demand
- Collection of less blood overall
- Improvement in regulatory compliance



# Service redesign

- Bid Successful £44K
- Project Plan submitted
  - Risks identified
  - Project objectives done
  - Costing, finance, release of monies agreed with CPO
- Job description and candidate specification written, at HR for ratification
- Once returned, Advertise April 2006