NHS
The Leeds Teaching Hospitals
NHS Trust

How will MES help the Yorkshire Heart Centre .....especially with staff retention and recruitment

Philips IGT study day- Birmingham 30 Sept 2019
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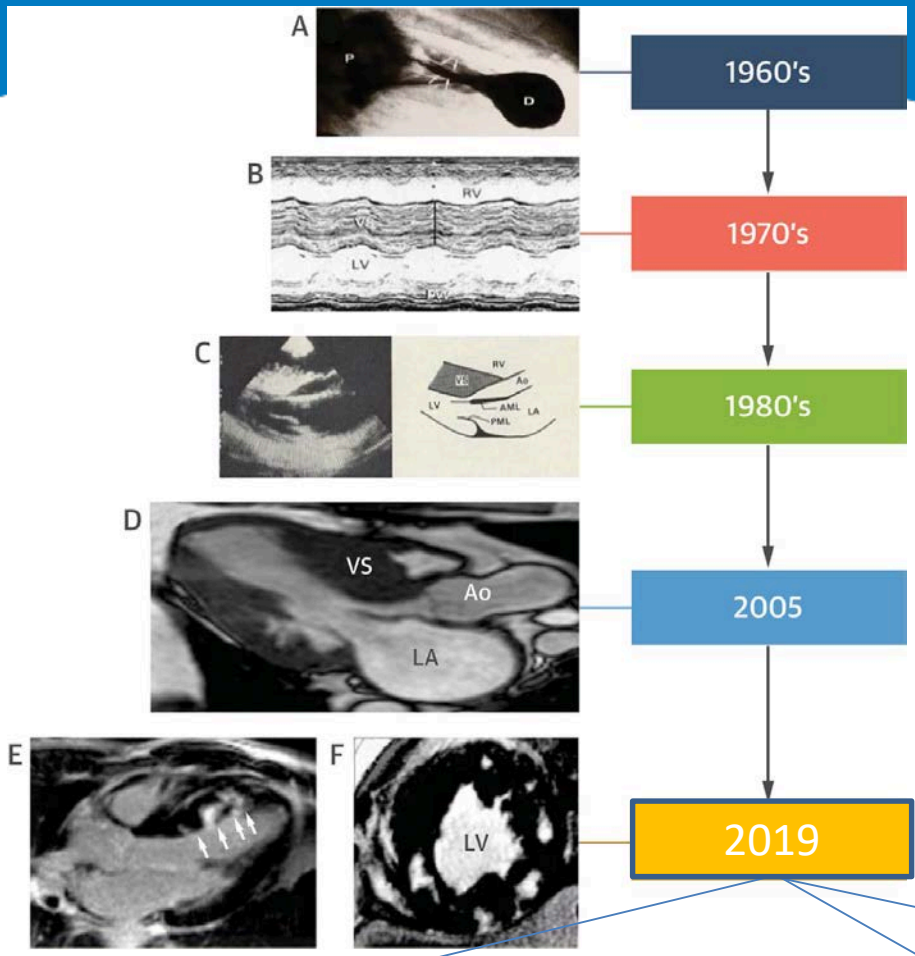
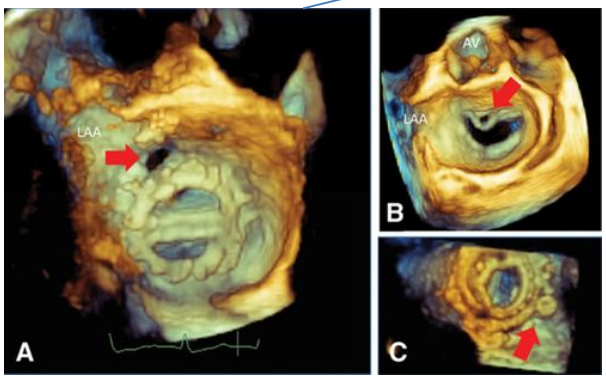
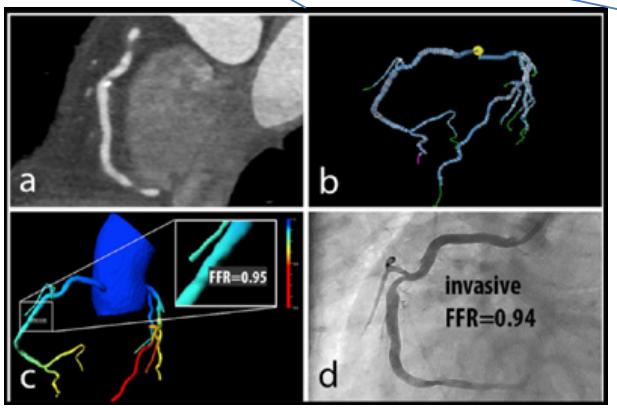
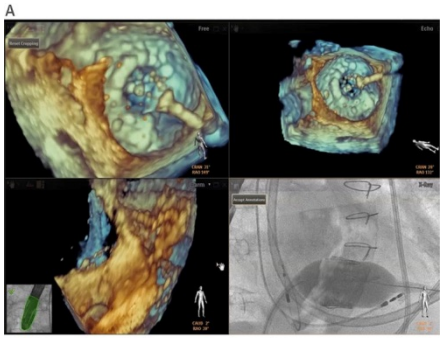
Cardiac Imaging in Leeds

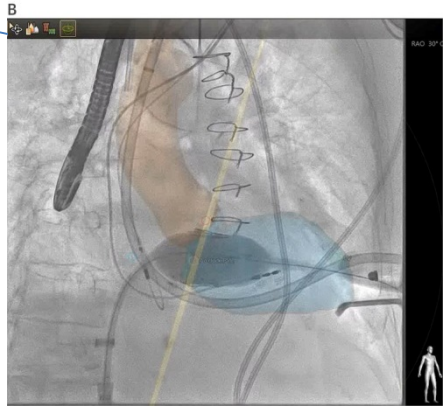
- Cathlabs x 6
- Cardiac CT
- Echocardiography (TTE, TOE, stress echo)
- Cardiac MR
- *Nuclear Cardiology*





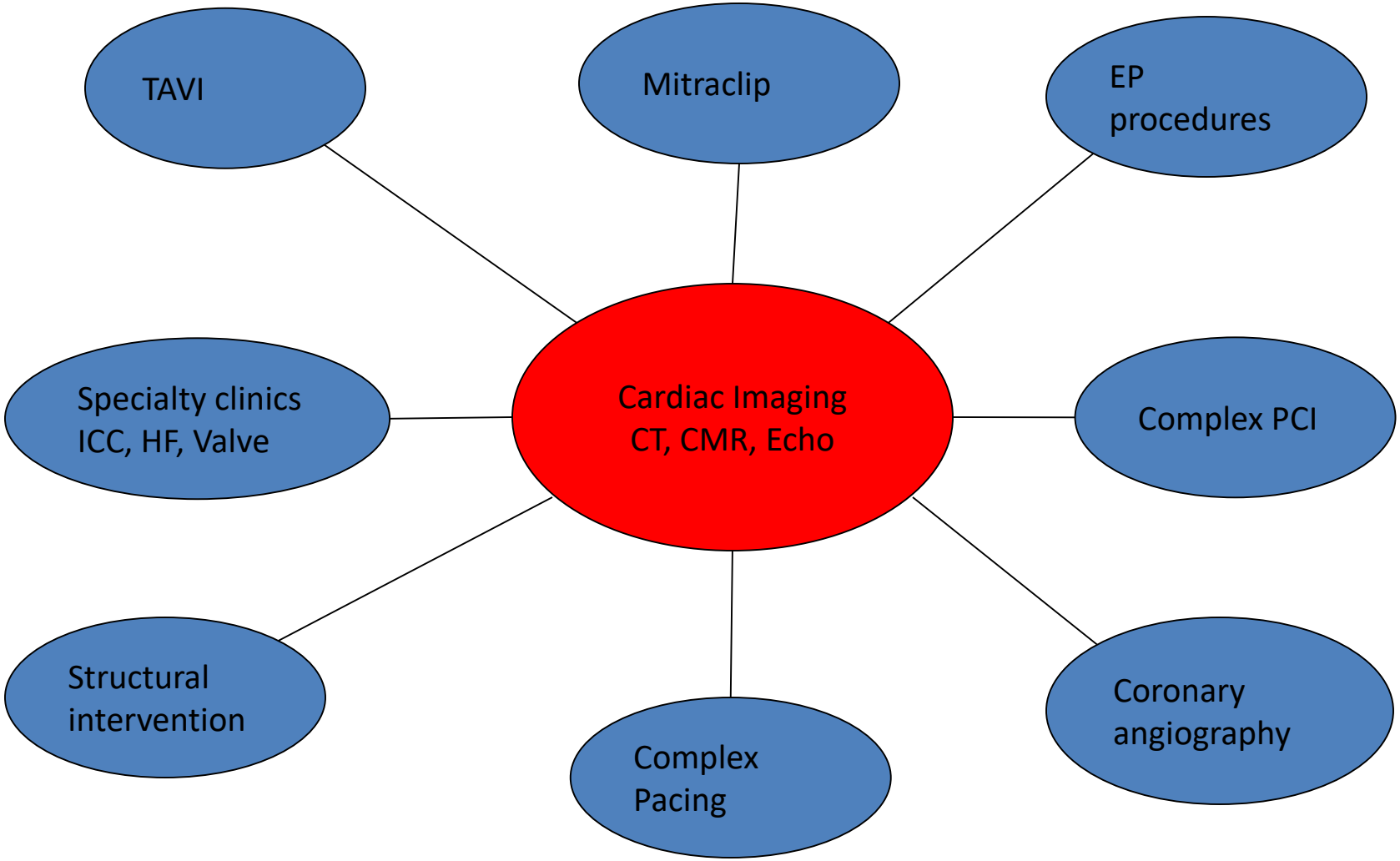






Adapted from Barry et al 2016

Central role of cardiac imaging



Challenges

Procedures	***Number***
PPCI	1065
Ablations	860
CRT	150
TAVI	250
Mitraclip	20

Leeds Figures for Imaging

	Echo			CMRI	CCT
	TTE	TOE	Stress		
2009	12400	200	400	1000	<100
2010	12600	330	650	1100	100
2011	13400	500	850	1500	150
2012	14000	550	1300	1800	300
2019	15000	600	2000	2200	1000

Challenges - Cathlab

- **Equipment**

A conversation between the lead clinician and the business manager…

  - **How many labs are on risk register ?**
    - all of them
  - How many times have they broken ?
    - Kat isn't around & she is keeping a record of this info for me, Lab 6 broke the first week in August & still not fixed
    - Lab 4 - the monitor no longer fit for purpose, the lab was out for 2 weeks in August too
    - A better way may be to say that 90 patients have been cancelled due to the broke labs from Jan 19 to date,
  - What was cost to repair them? £171 K

- **Staffing**
  - Constant Cathlab Nurse Shortages leading to cancellations
  - Inability to recruit
  - Increased on call commitments
  - Lack of progression opportunities

Challenges- Echo

- **Equipment**
  - 17 echo machines
  - No cathlab intervention echo machine
  - 50% of machines > 7yrs old
  - Insufficient high spec machines to support specialty clinics
- **Staffing**
  - National shortage of cardiac physiology work force
  - Lack of band 7 posts
  - Lack of progression opportunities

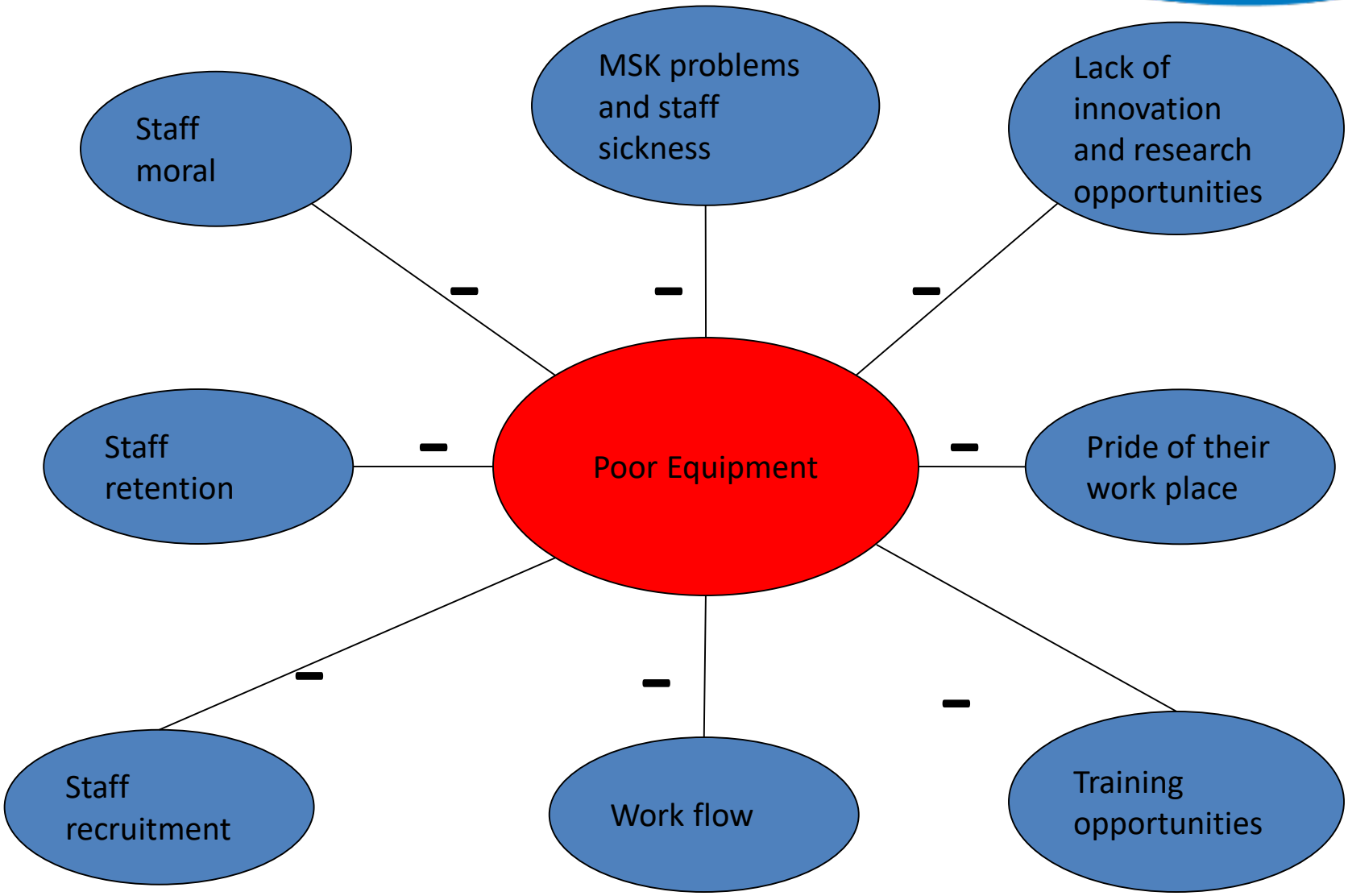
Challenges - CT

- CT scanner > 8 yrs old
  - 64 slice scanner
  - Slower imaging
  - Suboptimal quality
  - Higher risk of inconclusive results
  - Overuse and competition with radiology demand
- Staffing
  - Shortage of band 7 posts
  - Shortage of radiographers
  - Lack of progression opportunities

Challenges CMR

- Equipment
  - University owned
  - Insufficient IT
    - Not linked up to central PACS or booking or reporting system
- Staffing
  - Shortage of radiographers
  - Shortage of band 7 posts
  - Lack of progression opportunities

Central role of equipment



What can the LTHT do ?
The naivety of an imaging consultant

- Where is the equipment replacement program ?
  - Does not exist
- Surely when machines break down there is a process in place to replace equipment …
  - NO
- Surely there is a department and process in place that monitors the age of the equipment ..
  - NO
- But there has to be money available to replace equipment
  - YES
  - MSE - medical scientific equipment fund

  BUT….

  Pool of money for the whole of the trust that you have to apply for every year with only a small chance of being successful

What can we do ?

Factors supporting Productivity and Success

- Education
- Staff engagement
- Long-term planning
- Research and Development
- Investment

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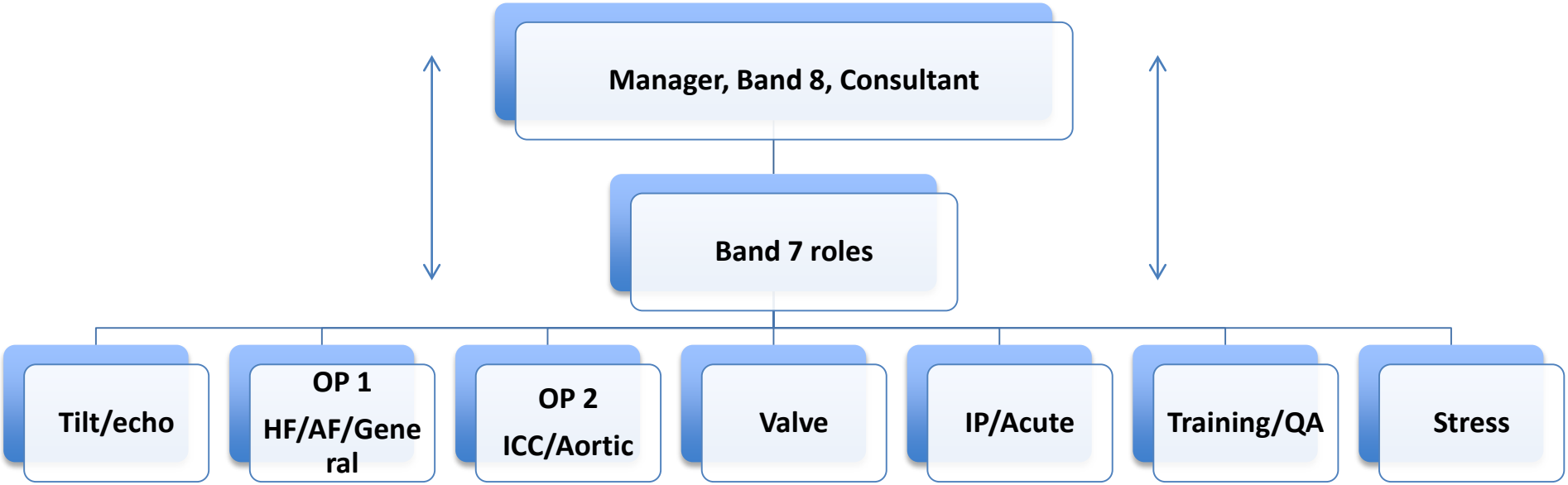
Novel ways of working in the cardiac imaging team

Old model	Novel model
• Consultant led • Physiologist/Radiographer support • Physiology and radiographer have little clinical involvement • Physiologists and Radiographers have overall little participation in clinical pathway of patient	• Consultant supported • “Up skilling” and role extension of radiographers and physiologists • More clinical involvement • Make us of their skills and abilities • Allow progression

What we did in echo- Band 7 roles

- Band 7 leading these areas of expertise and responsibilities
- Leadership
  - Waiting list management
  - SOP
  - Governance
    - Presentation of annual stress/ICC/valve audit
  - Rostering
  - Training
  - Development of protocols
- Research
  - Annual abstract in BSE
  - Help from consultant
- Better link with clinical team and management
- Opportunity to progress in their area to higher levels


Manager, Band 8, Consultant
Band 7 roles
Tilt/echo
OP 1
HF/AF/General
OP 2
ICC/Aortic
Valve
IP/Acute
Training/QA
Stress

Stress echo model

Consultant supervision

- **Plan of list prior to start**
- **Protocol and previous image review**
- **Reporting of all TOE and stress echo on day**
- **Triaging stress echo requests**
- **Echo reporting of echo requiring consultant opinion**
- **Emergency TOE**

	Band 7/nurse	*Band 7/nurse*
AM	**Room 1**	**Room 2**
0830-0930	Low	High
0930-1030	High	Low
1030-1130	Low	High
1130-1230	IP TOE or stress	Low

- Band 7 **led** and Consultant **supported**
- Same day reporting
- Education and multidisciplinary working
- Flexibility for consultant working
- More efficient use of consultant time
  - Supervision of several lists rather than one
- Good patient care

Opportunities in CT and CMR

- Radiographers triaging and reporting CTCA supported by consultants
- Radiographers report low complexity CMR
- More efficient use of consultant time
- Increased capacity and more cost efficient
- Staff satifacation
- Progression

Where does MES help ?

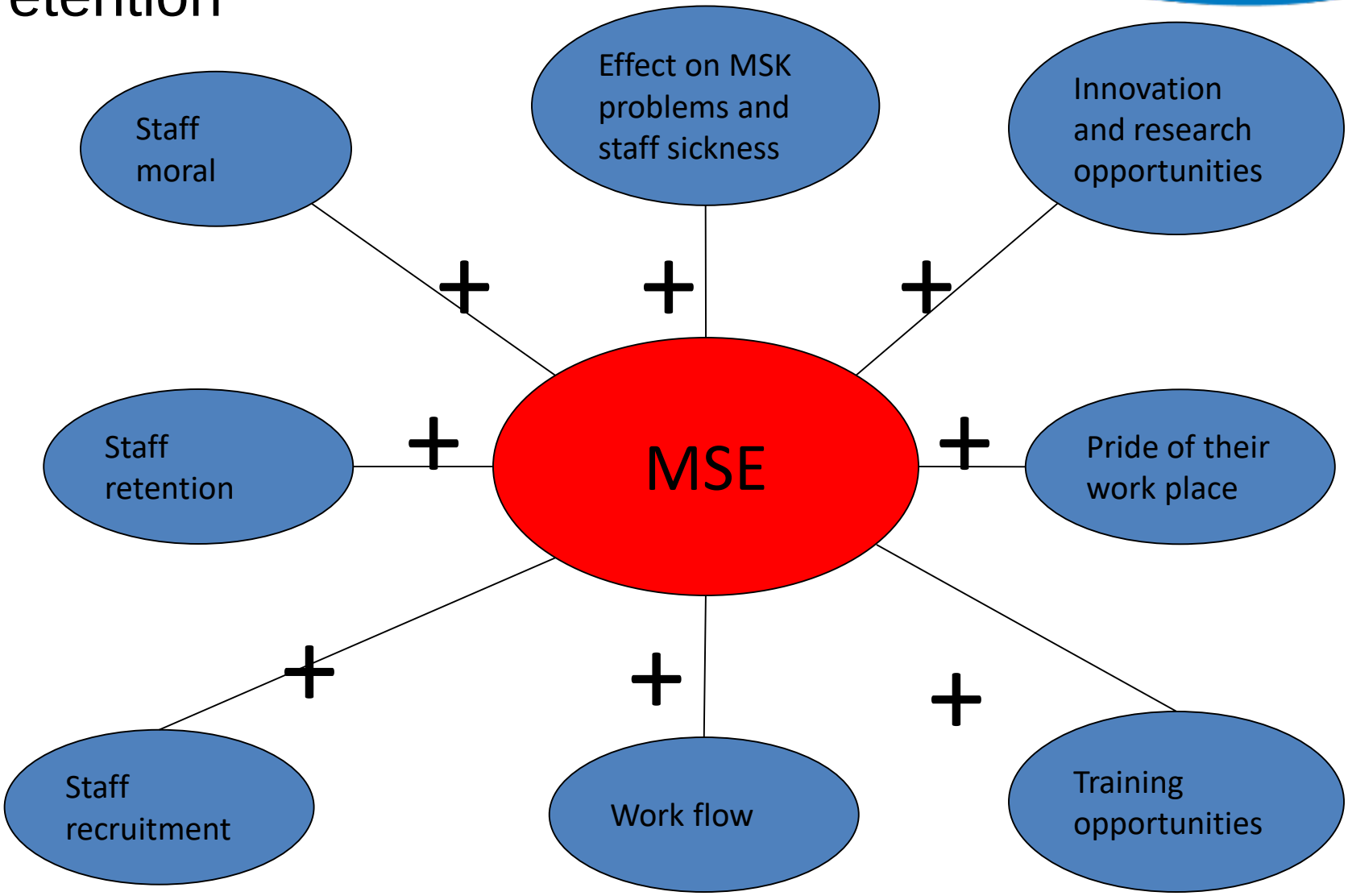
Factors to help with productivity and success

- Education
- Staff engagement
- Long-term planning
- Research and Development
- Investment

Planned Philips MES in Leeds

- Robust sustainability of equipment replacement
  - Cathlabs
  - CT
  - CMR
- Maintenance program
- Improved Work flows
- Education and Training
- IT solutions for request, reporting and dissemination of imaging reports
- Increased state of the art equipment and future proofing
- Allow Industry research

Central role of MSE for staff recruitment and retention



THANK YOU

ANY QUESTIONS ?