# PACS procurement tips and tricks

The Royal College of Radiologists

Procuring or replacing a picture archiving and communication system (PACS) is a complex process that requires careful planning, collaboration and technical understanding. The success of a PACS implementation depends on aligning organisational needs, budget and infrastructure with clinical and technical requirements. This guide compiles key tips and tricks from experts to help streamline the process and avoid common pitfalls.

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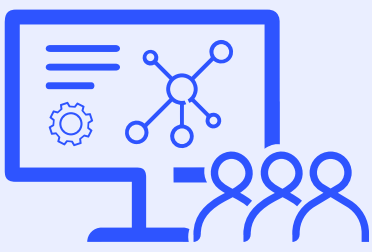

## Project management and planning

- **Define the end goal early**
  – Ensure all stakeholders agree on the system's primary objectives before starting procurement. A clear mission statement will help guide all decisions.
- **Train clinical staff in project management**
  – Identify key individuals early and provide necessary training (eg PRINCE2). Staff turnover can impact progress, so overprovisioning is wise.
- **Engage key teams from the start**
  – Involve data security, IT and procurement teams early to address compliance, cybersecurity and integration concerns.
- **Consider all work environments**
  – Ensure the system accommodates remote workstations, specialty integrations (eg orthopaedics, medical photography) and home reporting set-ups.
- **Anticipate resource demands**
  – Procurement and deployment require significant time and effort. Budget for additional staff support during the transition period.

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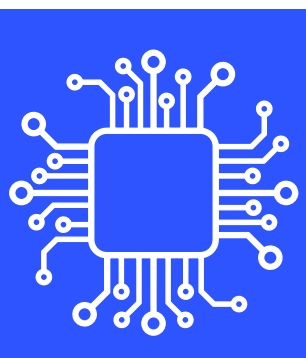

## Infrastructure and technology

- **Understand what your organisation needs**
  – Gather comprehensive data on existing examination volumes, modalities, sites and staffing to determine optimal future system capacity and functionality requirements.
- **Clarify financial considerations**
  – Confirm capital and operational funding sources before engaging vendors. Ensure transparency about existing vendor contracts and dependencies.
- **Define infrastructure expectations**
  – Decide whether the solution will be software-only, on-premises, cloud-hosted (eg Azure, AWS) or a hybrid model before tendering. For all cloud proposals consider how physically redundant connections can be installed to the site.
- **Research vendors thoroughly**
  – The more detail you provide to suppliers, the better their proposals will be. Avoid generic tenders by specifying precise system requirements.

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## Software and integration considerations

- **Establish software deliverables early**
  – Identify required modules, third-party integrations, AI capabilities and licensing structures before vendor discussions.
- **Clarify licensing terms**
  – Ensure licensing models allow flexibility (eg enterprise-wide licensing) to prevent unexpected costs or restrictions.
- **Engage all relevant stakeholders**
  – Interface requirements should not be based solely on existing set-ups – consider new options that may enhance efficiency.
- **Standardise interfaces**
  – Be explicit about HL7, FHIR or other protocols. Review past interface limitations and explore newer capabilities (eg GP interfaces acknowledging report receipt or leveraging bidirectional communications).

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## Implementation, support and governance

- **Set clear key performance indicators and service level agreements**
  – Define success metrics and ensure contractual agreements support them.
- **Establish governance structures**
  – Create escalation pathways and ensure project oversight includes key clinical and IT leaders.
- **Plan for adequate training**
  – Ensure consistent training across all sites and user groups, including remote and out-of-hours staff. Key users must act to support the project and remaining staff rather than simply receive early training.
- **Consider long-term support**
  – Determine whether support will be centralised or local. If regional procurement is involved, define communication protocols across multiple trusts.

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## Data migration and go-live strategies

- **Assess historical data needs**
  – Determine how much legacy data should be migrated for go-live. Patient history retention requirements will impact migration timelines. Excess requirements introduce delays.
- **Expect migration delays**
  – Data migration is often the rate-limiting step. Plan for phased migration and night-time bulk transfers where possible.
- **Monitor system performance closely**
  – Ensure rigorous testing and validation at each stage before full deployment.
- **Select testing staff for their skills**
  – Provide qualified clinical staff for testing their own modalities and third-party tools or integrations.


## Acknowledgements

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