

Development of the Patient Safety Incident Management System (DPSIMS): Stakeholder Update - Shortlisted Options

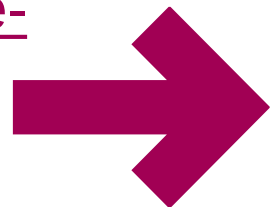
Domain 5 Patient
Safety

November 2015



This update

- The DPSIMS project aims, over 3 years, to specify and procure a system that will succeed the existing National Reporting and Learning System (NRLS) to support the NHS to learn more about what goes wrong in healthcare and how harm can be avoided.
- This update sets out the process undertaken to agree a shortlist of options to undertake this task.
- The options shortlisted will be submitted in a Strategic Outline Case (SOC) for approval, and subsequently carried forward for further development and testing in an Outline Business Case (OBC).
- More detailed background information for this project can be found here: <http://www.england.nhs.uk/wp-content/uploads/2014/12/nrls-dev-stakeholder-update-dec14.pptx>

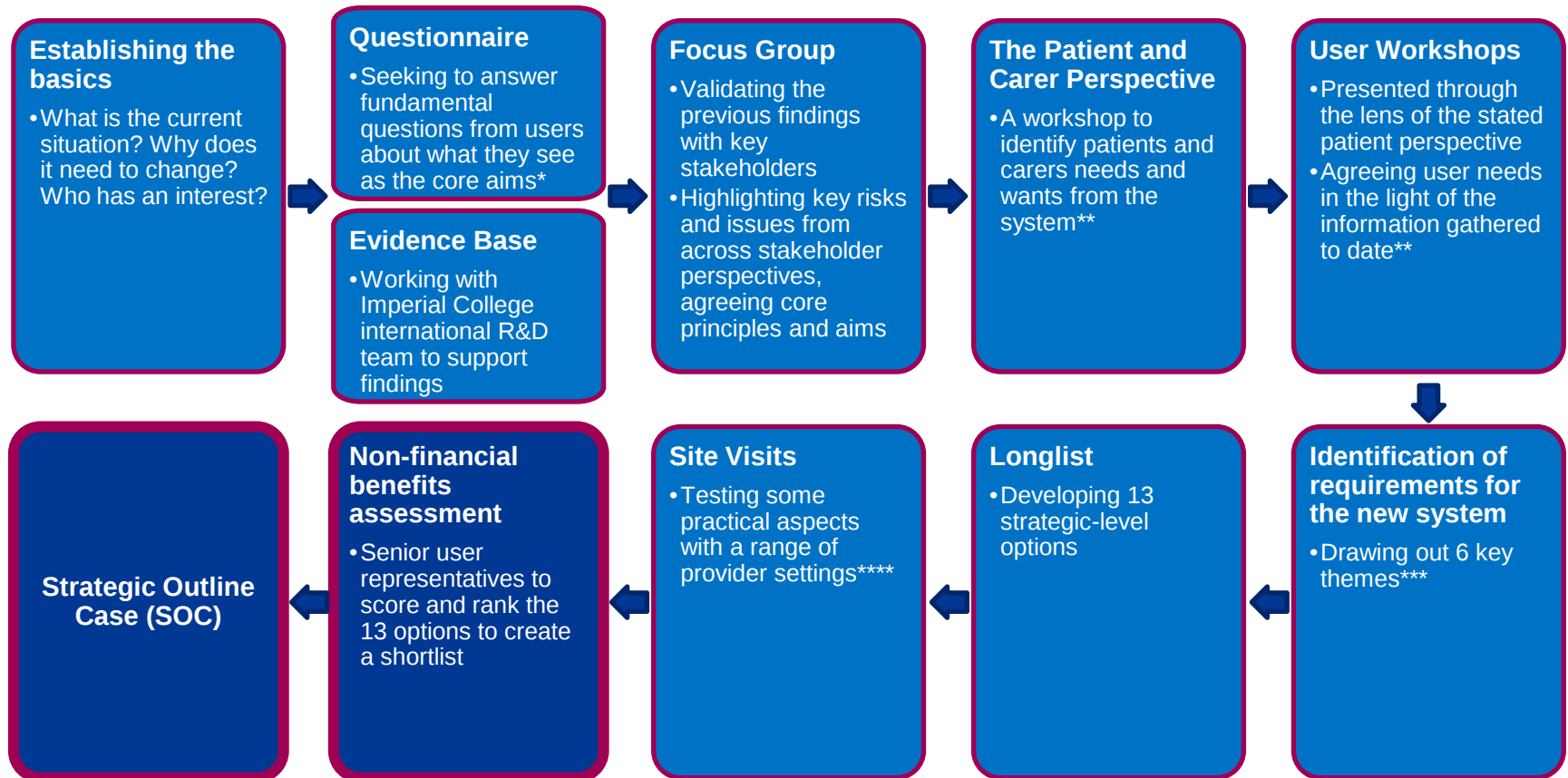


Our aim

- We need a reporting and learning system that will help improve the ability:
 - of **all healthcare-associated organisations** to report more effectively (eg non-acute settings, Independent Sector, devolved nations)
 - to develop **better learning** that supports more improvement
 - to provide **greater transparency** of patient safety data
 - to **reduce risks** associated with:
 - **duplication and omission**
 - lack of **standardisation**
 - the gap between the capabilities of the NRLS and the **needs of the NHS, patients, and other users.**
- Therefore, we are seeking to develop a successor to the NRLS, building on its success and making the new PSIMS fit for the future.



Process to date



*<https://fs2.formsite.com/res/resultsReportCharts?EParam=m/OmK8apOTAd8Y4p2frd7OmbtmIuQSUj2CO%2BcxzjberWeVliB0/mIAAI6fwFDdon2%2BycBO9iaxE%3D>

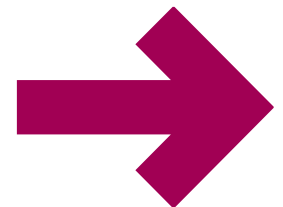
** <http://www.england.nhs.uk/wp-content/uploads/2014/10/nrls-dev-prof-wrkskps-rep.pdf>

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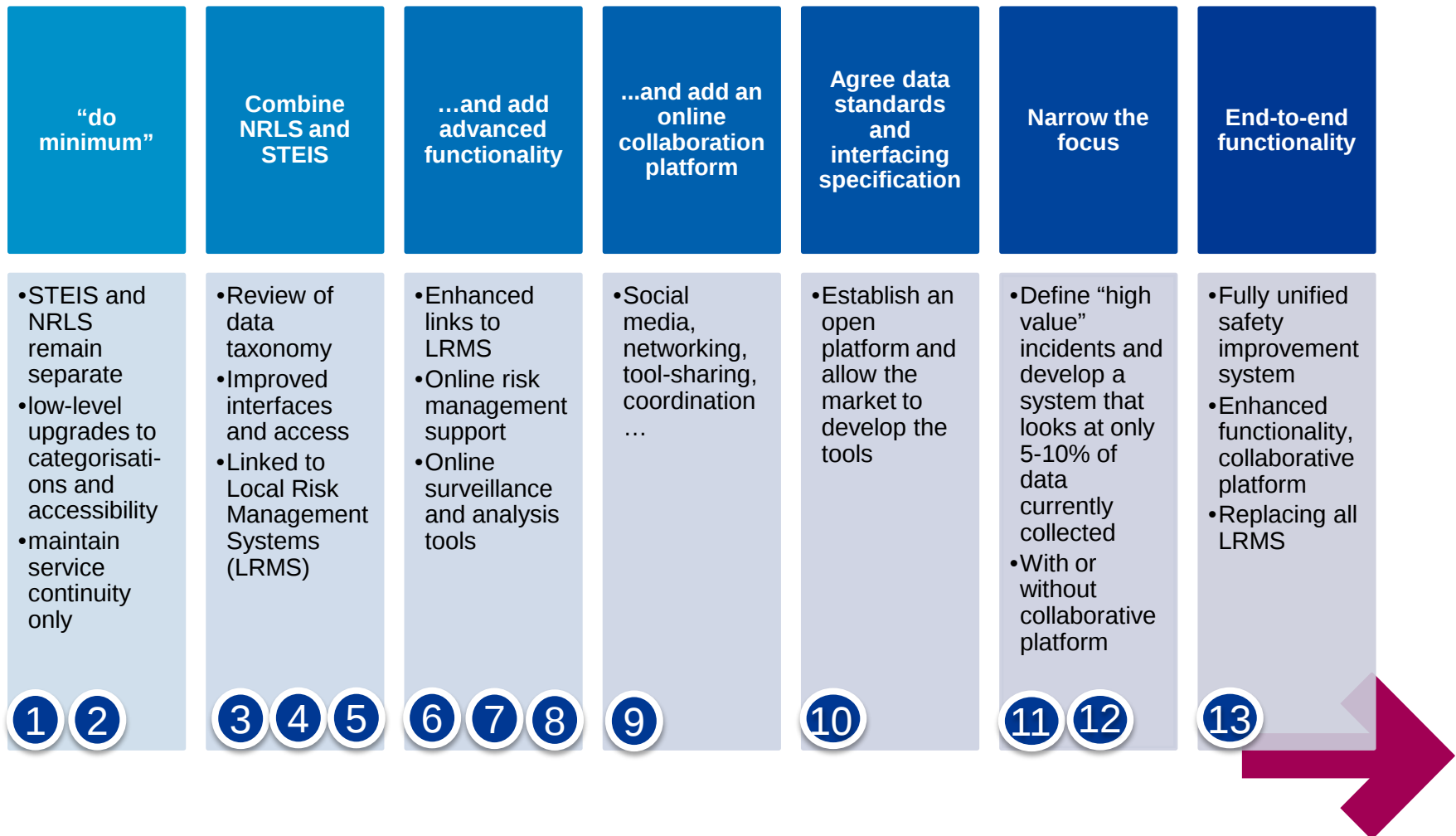
**** <http://www.england.nhs.uk/wp-content/uploads/2014/10/dpsims-site-visits-key-findings.pdf>

The non-financial benefits assessment

- The longlist of 13 options, developed over the last year in conversation with stakeholders and technical experts, needed to be distilled down to a shortlist.
- This shortlisting process was framed around the extent to which the high-level options will meet the needs expressed by stakeholders.
- These needs linked directly to our strategic aims.
- The assessment was undertaken in August 2015 by a panel of senior stakeholders, representing:
 - groups accountable for the safety of the health system,
 - operational users with patient and clinical representation, and
 - international technical and safety science experts.
- This approach will allow us to invest the required time and money to establish full and robust cost-benefit analyses and economic impact appraisals only for the options most likely to help reduce harm in the NHS.



The longlist of 13 options included...

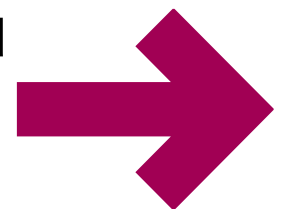


With each option defined in terms of its approach to six core elements:

Data taxonomy	•What information is collected and how it is organised
Data capture	•How the information is gathered; how people can make reports
Explore and analyse	•How the data can be looked at and used
Investigate and manage	•How the handling of incidents is tracked and followed up after they are reported
Share the learning	•Ways in which users can collaborate to spread useful information
Support functions	•Practical features that help the system run well for users

To support the assessment, the panel was presented with:

- detailed information about each option, including a description or the risks and benefits of each approach, and
- a high-level assessment of the complexity of delivering each option (simple/medium/complex).



The options were assessed against the extent to which they met our aims:

Strategic Aim	To what extent.....
Provide for the requirement to collect data on safety	Will the option support transparency? Will it enable data collection from a broader range of healthcare provision settings/types? Will it collect data in a way that can better elucidate the safety of NHS care?
Rationalise systems for the collection of safety data	Will the option subsume STEIS and NRLS into a single system? Will it provide the ability to link in to other systems in the future, reducing the need for further new systems to meet future reporting requirements?
Streamline processes for inputting safety data	Will the option reduce complexity for reporters? Will it collect data in a standardised way? Will it support patient reporting? Will it support the collection of higher quality data?
Enhance the learning and outputs to support improvement	Will the option help us to learn more about harm, its causes, incidence, and therefore the ways in which it might be prevented? Will it inform better, safer care?
Support high quality practice and good safety culture across healthcare	Will the option enable more organisations to engage with the safety agenda? Will it support learning and sharing between organisations? Will it improve feedback and engagement in the reporting-learning cycle?

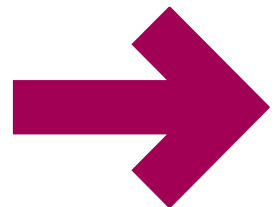


..and after a scoring process, the following shortlist was agreed

- Option 1: “Do minimum”*
- Option 7: “Expanded integration + LRMS”
- Option 8: “Integrated safety analysis system”
- Option 10: “Open safety analysis and sharing system”
- Option 12: “High-value safety improvement system”
- Option 13: “Unified safety improvement system”

Verbal descriptions and comparable visual representations of the shortlisted options are provided here, reflecting some refinements made by the panel during the discussion.

*It is good practice in business cases to include the “do minimum” option as a baseline for comparison



Option 1: Do minimum

Incremental upgrade to current NRLS

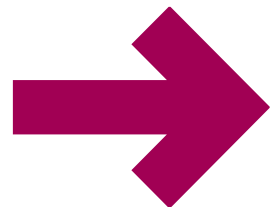
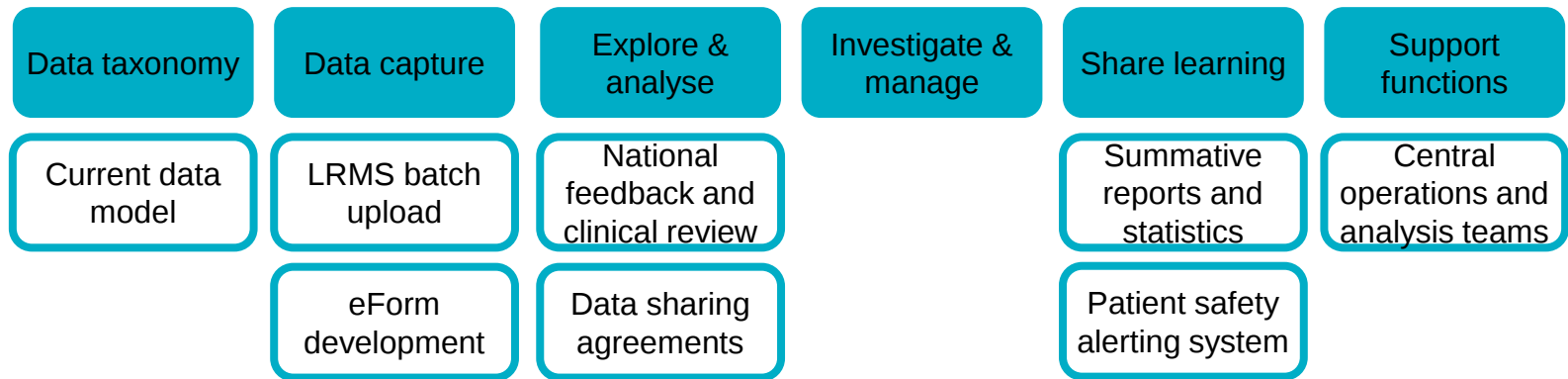
This option will support very limited improvement to basic NRLS functions and aims to keep the NRLS in its current form operational for as long as practical.

- With this option the current reporting systems for patient safety are retained in their current form. This means that the local structure of reporting is unchanged and the assessment and analysis is still carried out by a central resource.
- The only changes to the current system would be in the form of additional tools to access the current repository of data by local organisations.

Option 1: Do minimum

Incremental upgrade to current NRLS

This option will support very limited improvement to basic NRLS functions and aims to keep the NRLS in its current form operational for as long as practical. It provides no additional support to the rapidly evolving NHS patient safety agenda.



Option 7: Expanded integration + LRMS

Safety management workflow functions plus LRMS integration

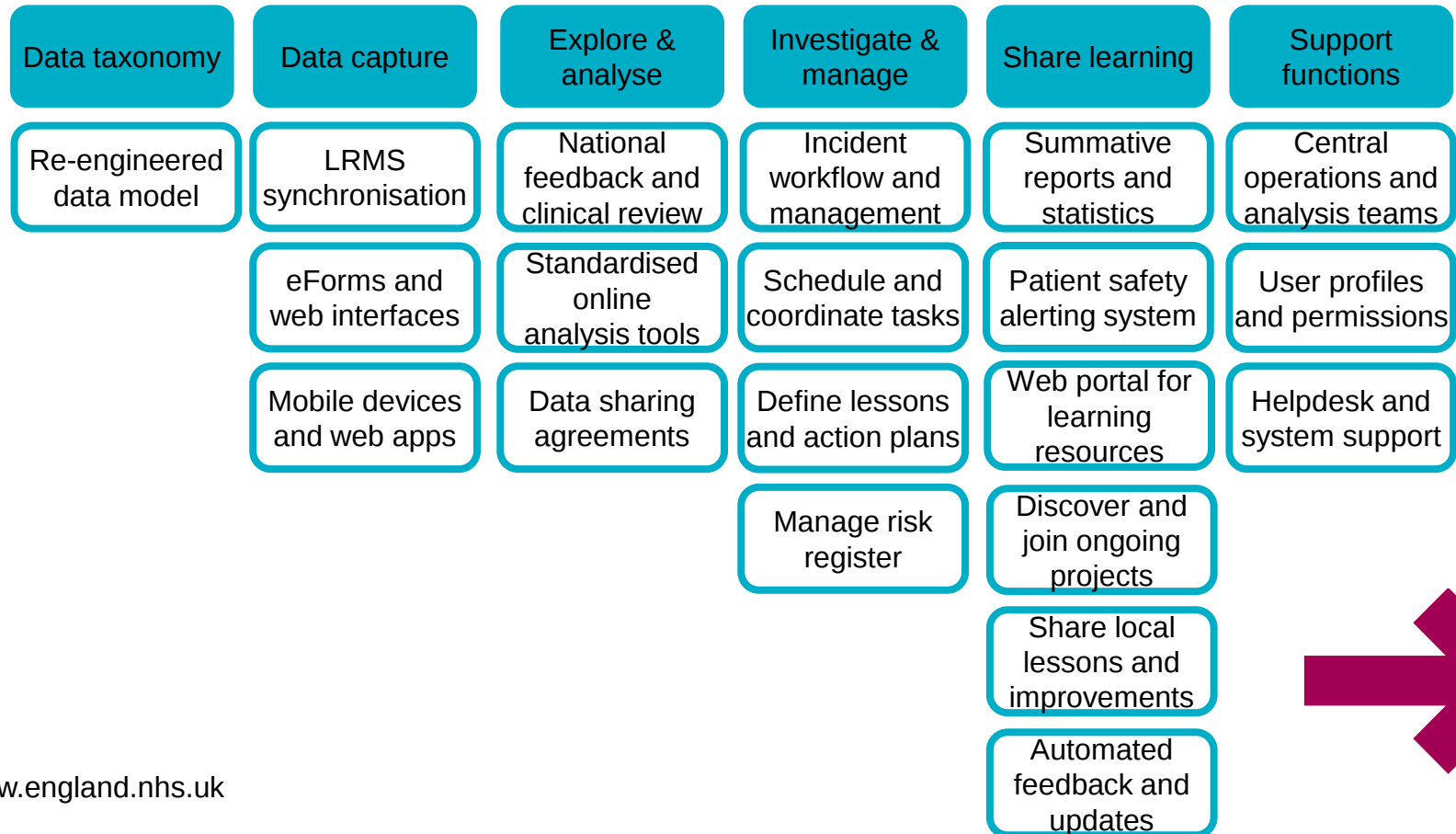
All options above number 4 make a significant move towards a more fully-functional patient safety reporting and learning system. They require meaningful changes at local and national level, in terms of software, behaviour, and learning culture, but offer comparably meaningful benefits. This option builds on this step-change, but with the addition of functionality specifically designed to provide safety and risk management tools to all registered users of the system, supporting safety management activities in a wide variety of groups and settings, and the additional benefit of maintaining a single version of events at both local and national levels to eliminate duplicate reporting between STEIS, NRLS and LRMS. However, this benefit comes at the cost of considerable technical challenges.

- Functions of NRLS and STEIS will be combined and operated from a new cloud-based database with a re-engineered data taxonomy.
- Syncing between NRLS and LRMS, maintaining a single, current version of events .
- Advanced web interface with management tools for organisations and groups that do not have LRMS with safety management functions.
- Incident management and safety analysis tools.
- Collaborative platform to support range of social media, social networking, sharing and coordination functions, allowing creation and sharing of user-generated information.
- This will allow capture and sharing of local incidents and local learning and improvement. Core team will curate and manage the platform and resources. Activity across the platform will help identify emerging trends and hot spots of activity.

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Option 8: Integrated safety analysis system

Analyse incidents and safety issues

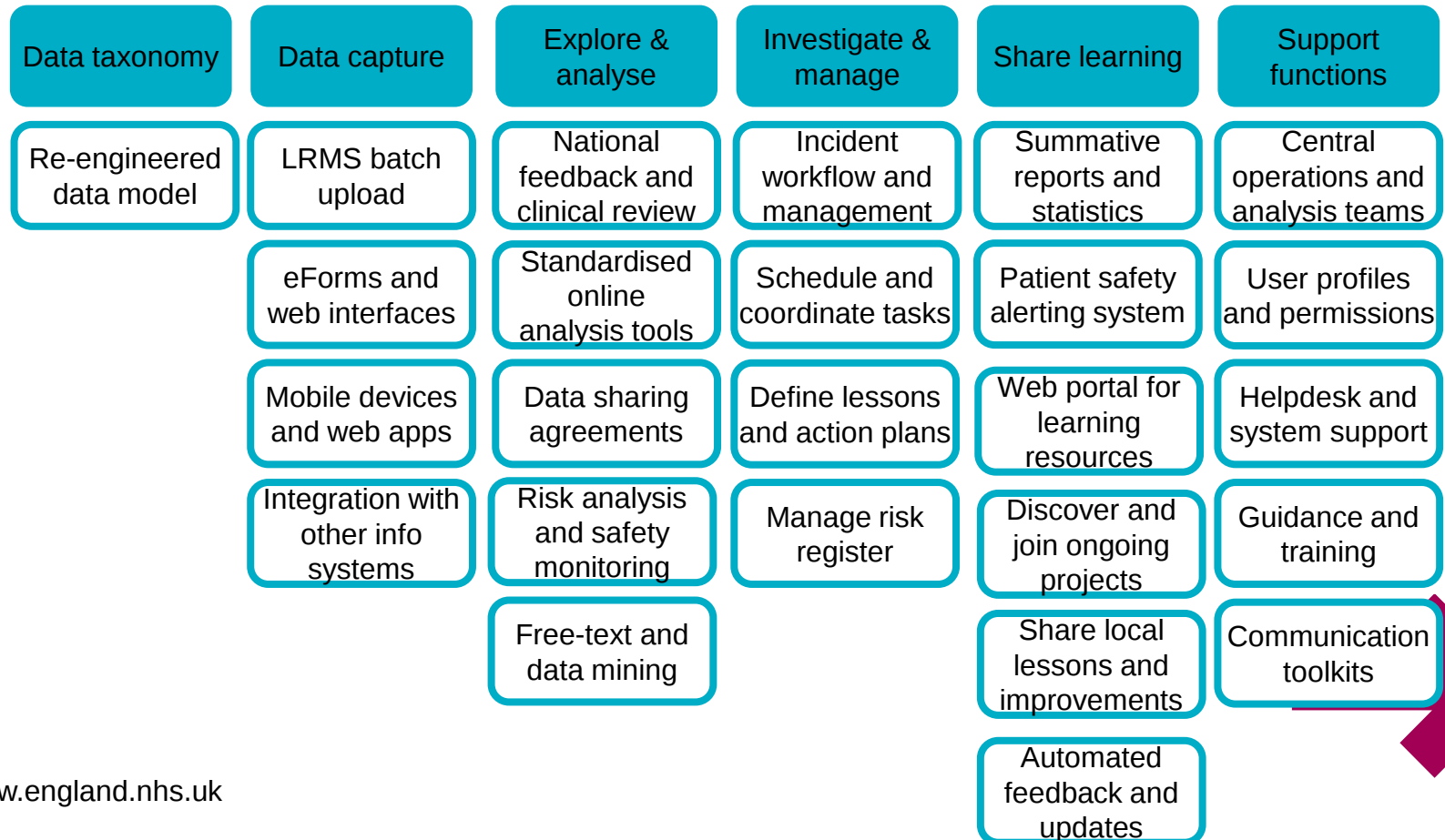
This option integrates innovative and advanced analytical tools and functions into the NRLS and provides this functionality to a wide range of stakeholders for safety improvement purposes. It is however heavily dependent on the successful development of these new technologies.

- Integrate NRLS and STEIS functions and supplement with incident management functions (as Option 7, but without two-way communication between the system and LRMS).
- Analytical tools will provide the capacity to interrogate, identify and monitor trends automatically.
- Web-based access to advanced tools for approved users, to use national level safety data for local learning activities.
- Links to compare with additional sources of patient safety data.
- Extra support to users of advanced tools, providing guidance on use and limitations.
- Collaborative platform, as with Option 7.

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Option 10: Open safety analysis and sharing system

Open analysis and learning platform

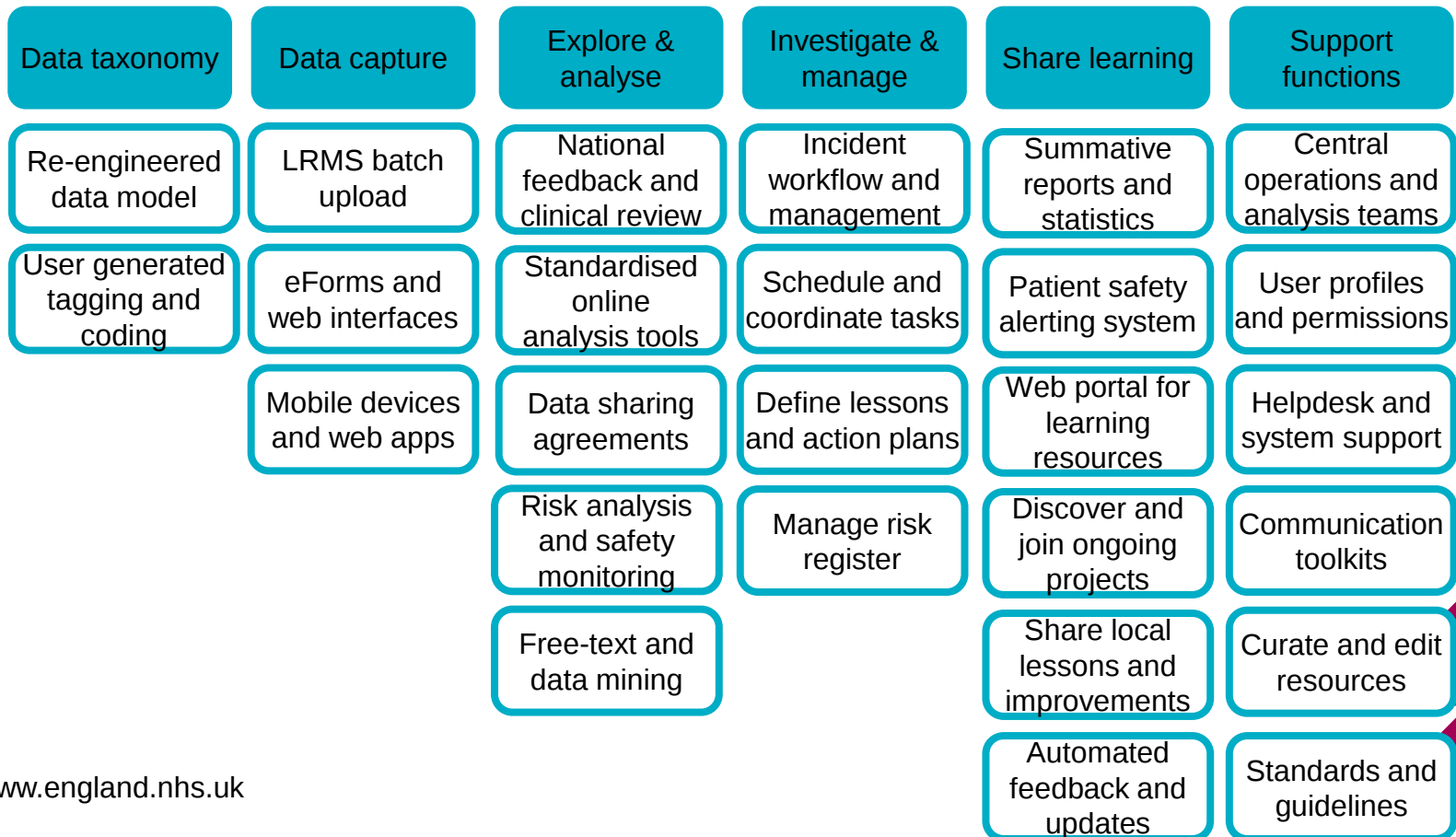
This option has the advantage of providing some basic and additional functionality for safety analysis and learning to all organisations, whilst also providing a platform for the future development of services that support learning, sharing and innovative analysis of safety data through third party tools.

- Integrate NRLS and STEIS functions, supplement with incident management functions (as Option 7) accessible via the web.
- Establish an open safety data platform for accessing and using safety incident data and information via approved and standardised interfaces.
- This will allow third parties to develop analytical and/or collaborative tools (eg “apps”) for use with national safety data.
- Support access to and use of data for analytical and collaborative purposes.
- Some basic tools could be developed in-house in the first instance.

Option 10: Open safety analysis and sharing system

Open analysis and learning platform

This option has the advantage of providing some basic and additional functionality for safety analysis and learning to all organisations, whilst also providing a platform for the future development of services that support learning, sharing and innovative analysis of safety data through third party tools.



Option 12: High-value safety improvement system

High-value system with collaboration

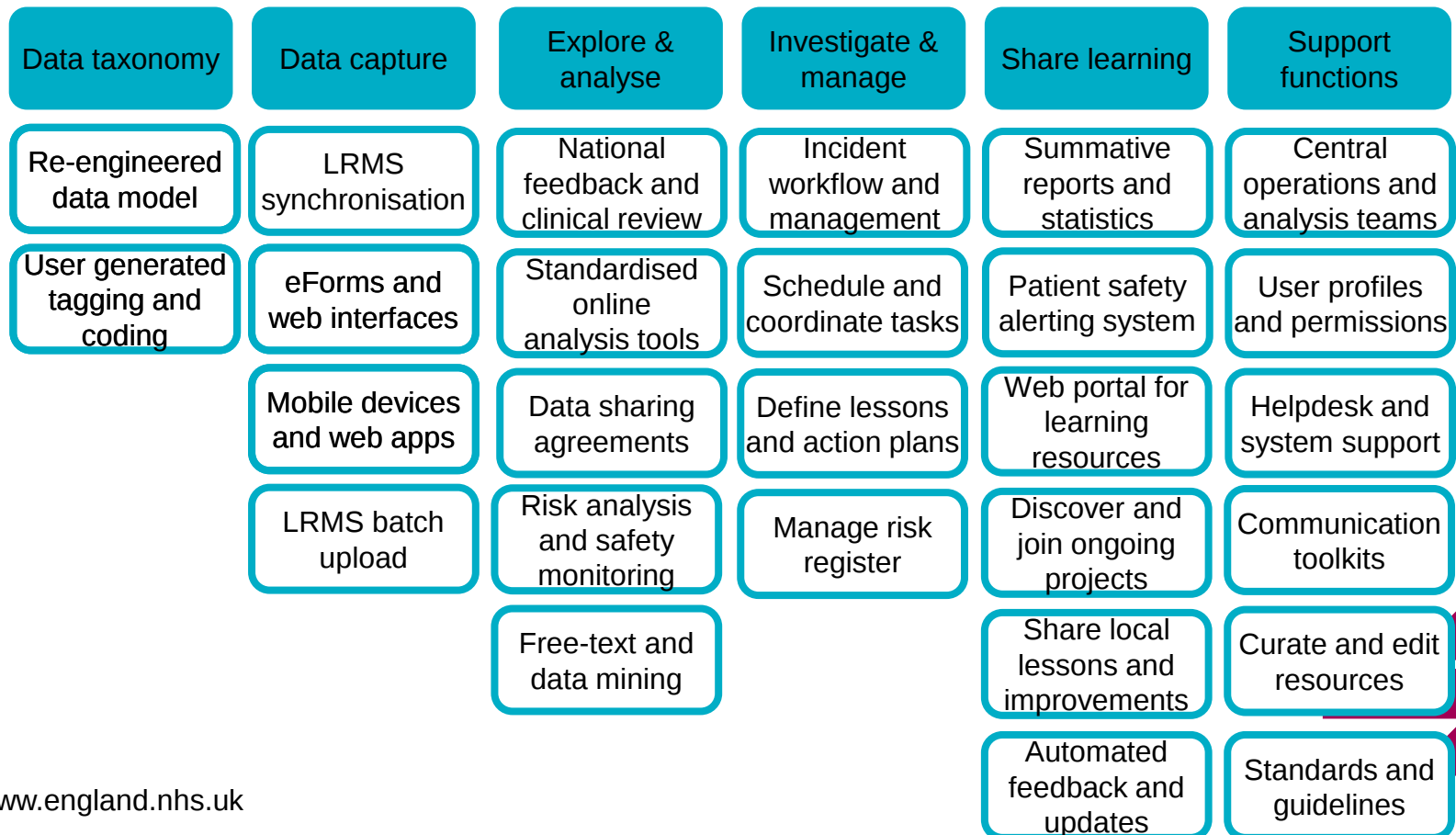
This option combines the functionality of a widely accessible safety management and information system with a large-scale repository of safety incident data and the local learning support of a collaborative platform for sharing safety solutions.

- Combine current NRLS and STEIS at the database level only, and retain as repository of incident data for exploration, monitoring and research.
- Develop a high-value safety information system (SIS), accessible via the web, for managing and analysing the most important and valuable safety incidents and issues (approximately 5-10% of current incident reports).
- This group could be defined in a number of ways: by severity, by theme, or other forms of prioritisation, and could change over time.
- SIS data captured either through LRMS or a web-based interface.
- All LRMS data will be captured for warehousing and long-term analysis and exploration.
- Online collaborative platform and sharing system for safety information (as per Option 7).

Option 12: High-value safety improvement system

High-value system with collaboration

This options combines the functionality of a widely accessible safety management and information system with a large-scale repository of safety incident data and the local learning support of a collaborative platform for sharing safety solutions.



Option 13: Unified safety improvement system

Single integrated patient safety system

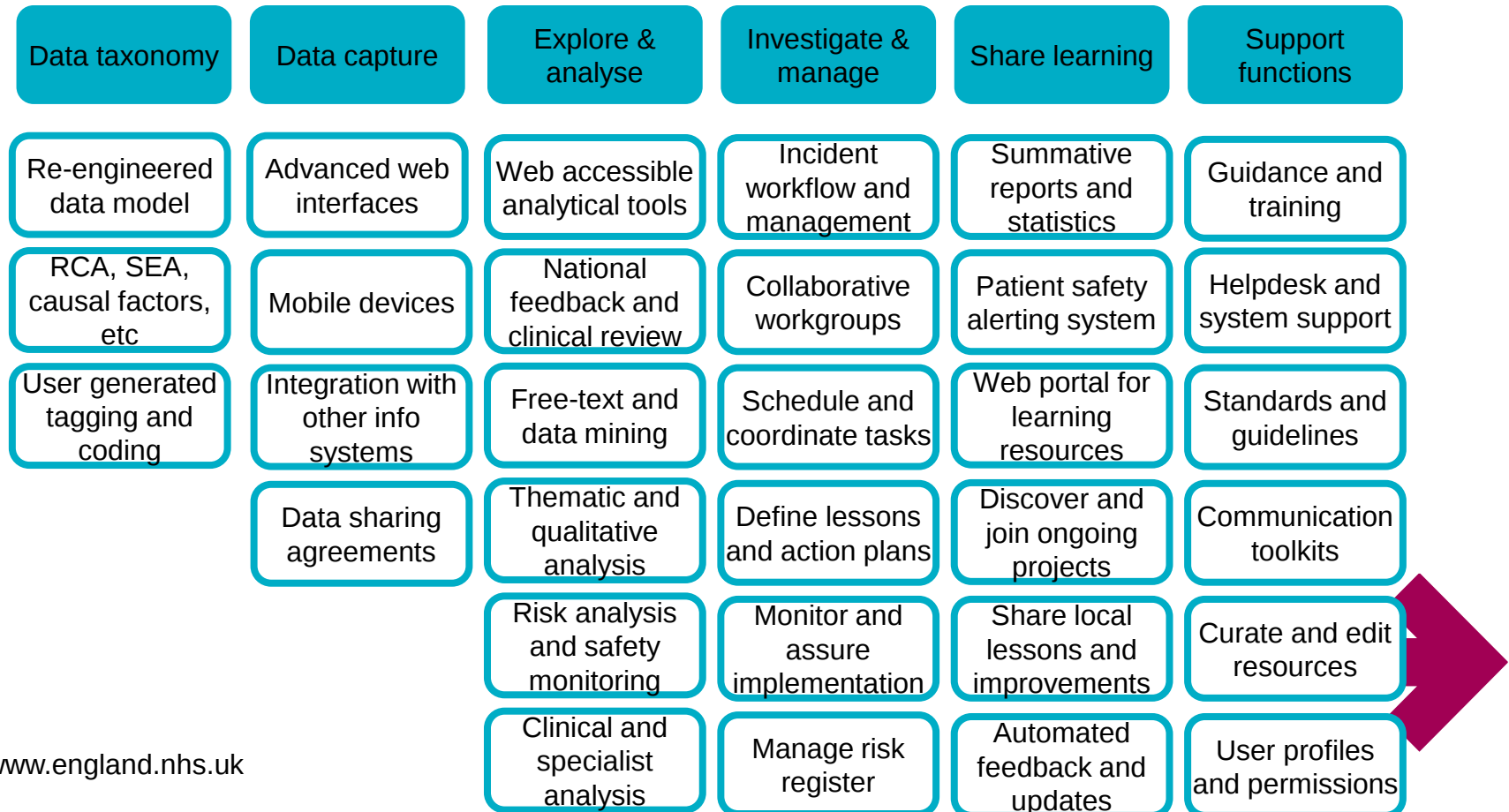
This option provides a highly standardised, multi-functional solution with significant impact at local and national levels. It offers multiple benefits at all levels for learning, analysis and sharing, but requires total overhaul and re-engineering of process at a national and local levels.

- The functions of NRLS and STEIS will be combined incident management functions (as Option 7), incorporate advanced tools (as Option 8) and integrate with online safety collaborative platform (as Option 7), and the patient safety functionality of LRMS would be replicated through an online interface.
- All data capture through a fully integrated safety improvement system that supports the capture of local incidents and local learning, and would eliminate the need for separate LRMS at local level.
- Additional extensive helpdesk and support functions to support all local level technical, administrative and analytical issues.
- All local management of incidents and analysis of safety issues will be captured and represented in a single unified system, allowing all analysis to be reviewed centrally as required, and supporting local learning in all settings.

Option 13: Unified safety improvement system

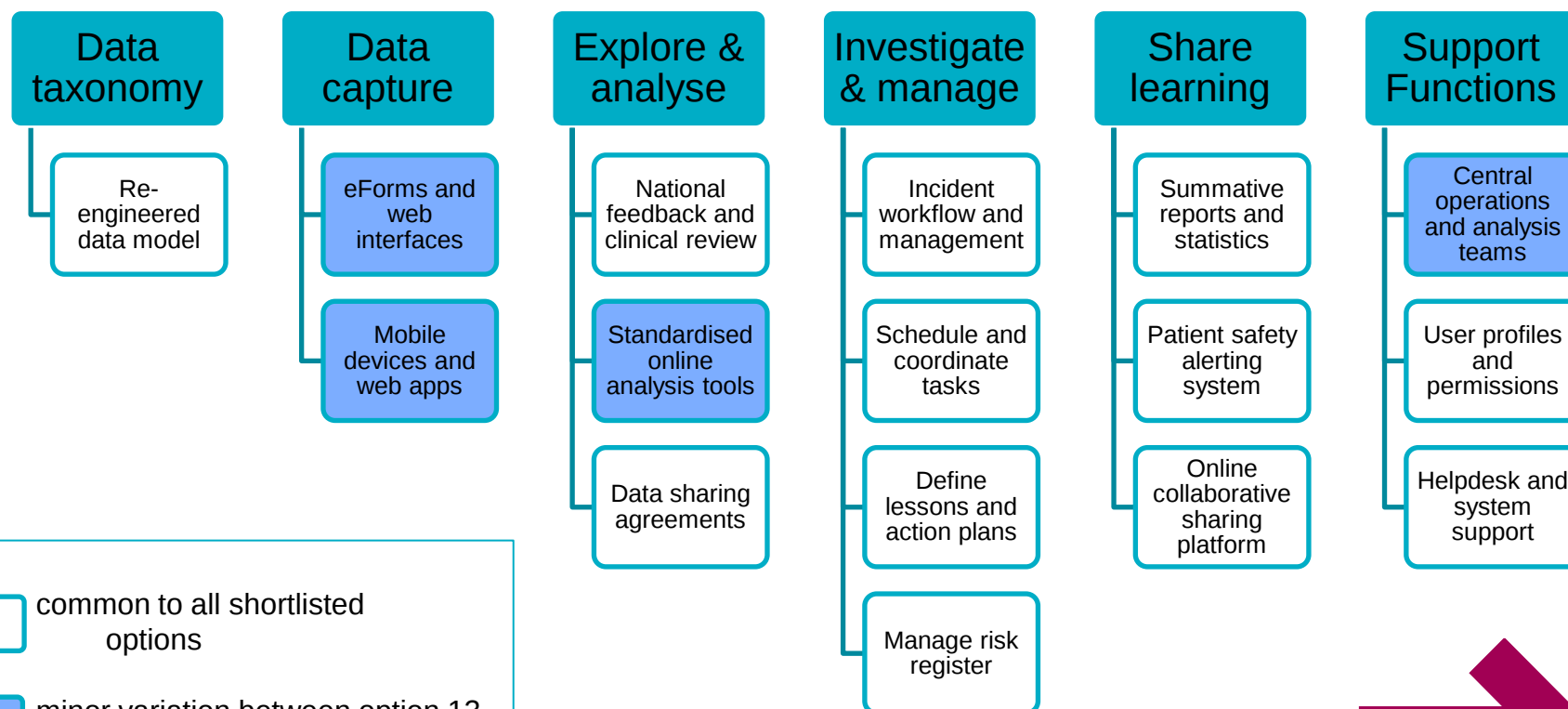
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Summary: common elements

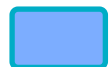
The below represents what can be considered to be the “core functional requirements” of the future PSIMS as decided by the non-financial benefits assessment, comprising the common elements of all options selected for shortlisting.



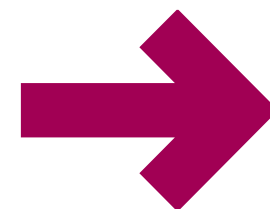
Key:



common to all shortlisted options

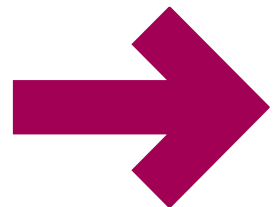


minor variation between option 13 and all others on shortlist



What does this mean?

- The shortlisted options will now be included in the SOC, and submitted for approval through the relevant NHS England and governmental channels – this may take several weeks.
- Once approval is granted, work will commence to further develop, define, cost and analyse these options for a second round of assessment in the OBC.
- Non-shortlisted options will not be discarded – they are put to one side and will be used for further comparison, and can be reinstated later on if appropriate.
- If you have any comments or questions, please contact lucie.mussett@nhs.net



Next steps

