HS.1	HS.2	HS.3	HS.4
Life cycle involvement	**Integrate human factors**	**Human-centred design**	**Human resources**
HS.1.1 Human-system issues in conception **HS.1.2** Human-system issues in development **HS.1.3** Human-system issues in production and utilization **HS.1.4** Human-system issues in utilization and support **HS.1.5** Human-system issues in retirement	**HS.2.1** Human-system issues in business strategy **HS.2.2** Human-system issues in quality management **HS.2.3** Human-system issues in authorisation and control **HS.2.4** Management of human-system issues **HS.2.5** HF data in trade-off and risk mitigation **HS.2.6** User involvement **HS.2.7** Human system integration **HS.2.8** Develop and re-use HF data	**HS.3.1** Context of use **HS.3.2** User requirements **HS.3.3** Produce design solutions **HS.3.4** Evaluation	**HS.4.1** Human resources strategy **HS.4.2** Define standard competencies and identify gaps **HS.4.3** Design staffing solution and delivery plan **HS.4.4** Evaluate product system solutions and obtain feedback

HS.1.1	HS.1.2	HS.1.3	HS.1.4	HS.1.5
Human-system issues in conception	**Human-system issues in development**	**Human-system issues in production and utilization**	**Human-system issues in utilization and support**	**Human-system issues in retirement**
HS.1.1.BP1 Identify expected context of use of systems HS.1.1.BP2 Analyse the system concept HS.1.1.BP3 Describe the objectives which the user or user organisation wants to achieve through use of the system HS.1.1.BP4 Identify and analyse the roles of each group of stakeholders likely to be affected by a product system HS.1.1.BP5 Perform research into required system usability HS.1.1.BP6 Present context and human resources options and constraints to the project stakeholders HS.1.1.BP8 Contribute to the business case for the system	HS.1.2.BP1 Generate design options for each aspect of the system related to its use and its effect on stakeholders HS.1.2.BP2 Produce human centred solutions for each design option HS.1.2.BP3 Design for customisation HS.1.2.BP4 Develop simulation or trial implementation of key aspects of the system for the purposes of testing with users HS.1.2.BP5 Collect user input on the usability of the developing system HS.1.2.BP6 Assess the health and well-being risks to the users of the system HS.1.2.BP7 Assess the risks to the community and environment arising from human error in the use of the system	HS.1.3.BP1 Evolve options and constraints into an implementation strategy covering technical, integration, and planning and manning issues HS.1.3.BP2 Identify, specify and produce the infrastructure for the system HS.1.3.BP3 Maintain contact with users and the client organisation throughout the definition, development and introduction of a system HS.1.3.BP4 Build required competencies into training and awareness programmes HS.1.3.BP5 Test that the system meets the requirements of the users, the tasks and the environment, as defined in its specification HS.1.3.BP6 Analyse feedback on the system during delivery and inform the organisation of emerging issues	HS.1.4.BP1 Produce personnel strategy HS.1.4.BP2 Review the system for adherence to applicable human science knowledge, style guides, standards, guidelines, regulations and legislation HS.1.4.BP3 Deliver training and workshops to users and maintainers HS.1.4.BP4 Assess the effect of change on the usability of the system HS.1.4.BP5 Review the health and well-being risks to the users of the system HS.1.4.BP6 Review the risks to the community and environment arising from human error in the use of the system HS.1.4.BP7 Take action on issues arising from in service assessment HS.1.4.BP8 Perform research to refine and consolidate operation and support strategy for the system HS.1.4.BP8 Take action on issues arising from in service assessment	HS.1.5.BP1 Collect and analyse in-service reports to generate updates or lessons learnt for the next version of the system HS.1.5.BP2 Identify risks and health and safety issues associated with removal from service and destruction of the system HS.1.5.BP3 Define how users will be re-allocated, dismissed, transferred to other duties. HS.1.5.BP4 Plan break-up of social structures HS.1.5.BP5 Debriefing and retrospective analysis for replacement system

HS.2.1	HS.2.2	HS.2.3	HS.2.4	HS.2.5	HS.2.6	HS.2.7	HS.2.8
Human-system issues in business strategy	**Human-system issues in quality management**	**Human-system issues in authorisation and control**	**Management of human-system issues**	**HF data in trade-off and risk mitigation**	**User involvement**	**Human system integration**	**Develop and re-use HF data**
HS.2.1.BP1 Define usability as a competitive asset HS.2.1.BP2 Set usability, health and safety objectives for systems HS.2.1.BP3 Follow competitive situation in the market place HS.2.1.BP4 Develop user-centred infrastructure HS.2.1.BP5 Relate HS issues to business benefits	HS.2.2.BP1 Establish and communicate a policy for human-centredness HS.2.2.BP2 Include HR and user centred elements in support and control procedures HS.2.2.BP3 Define and maintain HCD and HR infrastructure and resources HS.2.2.BP4 Increase and maintain awareness of usability HS.2.2.BP5 Develop or provide staff with suitable HS skills	HS.2.3.BP1 Take account of stakeholder and user issues in acquisition activities HS.2.3.BP2 Take account of HS issues in financial management HS.2.3.BP3 Assess and improve HS capability in processes which affect usability, health and safety HS.2.3.BP4 Include HS review and sign-off in all reviews and decisions	HS.2.4.BP1 Develop a plan to achieve and maintain usability throughout the life of the system HS.2.4.BP2 Identify the specialist skills required and plan how to provide them HS.2.4.BP3 Manage the life cycle plan to address HS issues	HS.2.5.BP1 Plan and manage use of HF data to mitigate risks related to HS issues HS.2.5.BP2 Assess the extent to which usability criteria and other HS requirements are likely to be met by the proposed design HS.2.5.BP3 Evaluate the current severity of emerging threats to system usability and other HS risks and the effectiveness of mitigation measures HS.2.5.BP4 Take effective mitigation to address risks to product system usability	HS.2.6.BP1 Identify HS issues and aspects of the system that require user input HS.2.6.BP3 Assess the risks of not involving end users in each evaluation HS.2.6.BP4 Define a strategy and plan for user involvement HS.2.6.BP5 Select and use the most effective method to elicit user input HS.2.6.BP6 Take account of user input and inform users	HS.2.7.BP1 Develop a common terminology for HS issues with the organisation HS.2.7.BP2 Facilitate personal and technical interactions related to HS issues HS.2.7.BP3 Identify and use the most suitable data formats for exchanging HF data HS.2.7.BP4 Customise tools and methods as necessary for particular projects/stages HS.2.7.BP5 Identify emerging HS issues	HS2.8 BP1 Have a policy for HF data management HS.2.8. BP2 Perform research to develop HF data as required HS.2.8 BP3 Produce coherent data standards and formats HS.2.8 BP4 Define rules for the management of data HS.2.8 BP5 Develop and maintain adequate data search methods HS.2.8.BP6 Seek and exploit expert guidance and advice on HS issues

HS.3.1	HS.3.2	HS.3.3	HS.3.4
Context of use	**User requirements**	**Produce design solutions**	**Evaluation**
HS.3.1.BP1 Define the scope of the context of use for the system HS.3.1.BP2 Analyse the tasks and worksystem HS.3.1.BP3 Describe the characteristics of the users HS.3.1.BP4 Describe the cultural environment/organisational/management regime HS.3.1.BP5 Describe the characteristics of any equipment external to the product system and the working environment HS.3.1.BP6 Describe the location, workplace equipment and ambient conditions HS.3.1.BP7 Analyse the implications of the context of use HS.3.1.BP8 Present these issues to project stakeholders for use in the development or operation of the product system	HS.3.2.BP1 Set and agree the expected behaviour and performance of the system with respect to the user HS.3.2.BP2 Develop an explicit statement of the user requirements for the system HS.3.2.BP3 Analyse the user requirements HS.3.2.BP4 Generate and agree on measurable criteria for the system in its intended context of use HS.3.2.BP5 Present these requirements to project stakeholders for use in the development and operation of the system	HS.3.3.BP1 Distribute functions between the human, machine and organisational elements of the system best able to fulfil each function HS.3.3.BP2 Develop a practical model of the user's work from the requirements, context of use, allocation of function and design constraints for the system HS.3.3.BP4 Produce designs for the user-related elements of the system that take account of the user requirements, context of use and HF data HS.3.3.BP5 Produce a description of how the system will be used HS.3.3.BP6 Revise design and safety features using feedback from evaluations	HS.3.4.BP1 Plan the evaluation HS.3.4.BP2 Identify and analyse the conditions under which a system is to be tested or otherwise evaluated HS.3.4.BP3 Check that the system is fit for evaluation HS.3.4.BP4 Carry out and analyse the evaluation according to the evaluation plan HS.3.4.BP5 Understand and act on the results of the evaluation

HS.4.1	HS.4.2	HS.4.3	HS.4.4
Human resources strategy	**Define standard competencies and identify gaps**	**Design staffing solution and delivery plan**	**Evaluate system solutions and obtain feedback**
HS.4.1.BP1 Decide the goals, behaviours and tasks of the organisation HS.4.1.BP2 Define the global numbers, skills and supporting equipment needed to achieve those tasks HS.4.1.BP3 Decide how many people are needed to fulfil the strategy and what ranges of competence they need HS.4.1.BP4 Implement the HR strategy that gives the organisation a mechanism for implementing and recording lessons learnt HS.4.1.BP5 Feedback into future HR procurement, training and delivery strategies HS.4.1.BP6 Enable and encourage people and teams to work together to deliver the organisation's objectives	HS.4.2.BP1 Identify current tasking/duty HS.4.2.BP2 Analyse gap between existing and future provision HS.4.2.BP3 Identify skill requirements for each role HS.4.2.BP4 Predict staff wastage between present and future HS.4.2.BP5 Calculate the available staffing taking account of working hours, attainable effort and non-availability factor HS.4.2.BP6 Compare to define gap and communicate requirement to design of staffing solutions HS.4.2.BP7 Create capability to meet system requirements in the future (conduct succession planning) HS.4.2.BP8 Produce and promulgate a validated statement of shortfall by number and range of competence	HS.4.3.BP1 Identify and allocate the functions to be performed HS.4.3.BP2 Specify and produce job designs and competence/skills required to be delivered HS.4.3.BP3 Calculate the required number of personnel (number required) HS.4.3.BP4 Generate costed options for delivery of training and/or redeployment HS.4.3.BP5 Evolve options and constraints into an optimal implementation plan HS.4.3.BP6 Develop and trial training solution to representative users HS.4.3.BP7 Deliver final training solutions to designated staff according to agreed timetable HS.4.3.BP8 Identify any opportunities for redeployment	HS.4.5.BP1 Develop a strategy for data gathering HS.4.5.BP2 Provide means for user feedback HS.4.5.BP3 Conduct assessments of usability HS.4.5.BP4 Interpret the findings HS.4.5.BP5 Validate the data HS.4.5.BP6 Check that the data are being used