

SOLVENCY II

GUIDANCE NOTES FOR DRY RUN PROCESS

NOVEMBER 2009



CONTENTS

	Page
Introduction	3
Scope of dry run process	3
Definition of dry run	4
Link with ICA process	5
Dry run review requirements and timelines	7
Qualitative review	7
Quantitative review	10
Regulatory review	11
Implementation Plans	
Lloyd's minimum requirements	13
Guidance on completion	14
Appendices	
1 Transition from ICAS to Solvency II	
2 Dry run high level timetable	
3 Dry run requirements	
4 Implementation plan checklist	
5 Workstream/project plan template	
6 Example workstreams	
7 Delivery timetable template	
8 Links to useful information	

INTRODUCTION

All syndicates are required to have an internal model which meets Solvency II standards by October 2012 and Lloyd's will be working closely with the FSA on the review of these models. As advised to the market recently, Lloyd's will be conducting a dry run exercise beginning in 2010 which will apply to all active syndicates.

To assist managing agents with their preparation for this process, Lloyd's has set out in this document a high level overview of the dry run process and requirements. The document also includes more detailed guidance on producing an implementation plan which is required to be submitted to Lloyd's by 31 December 2009 and is the first phase of preparation for the dry run process.

Agents have also been invited to attend one of two workshop sessions in early December where additional help and support around both the preparation of implementation plans and the dry run requirements will be available. Agents are also encouraged to contact their Solvency II account manager at an early stage if they have any questions regarding implementation plans.

Details around the dry run process can only be fairly high level at this stage and Lloyd's will be working closely with the market over the coming months to develop detailed guidance which is due to be issued in March 2010. This will be supported by further workshops ahead of the first dry run submissions in June.

Lloyd's has agreed in principle with the FSA an outline plan for the dry run process and this document sets out the stages and timings of this. It is intended to give as clear a view as possible on the likely requirements and to assist agents with the planning work required by the end of the year as well as aiding preparation for the dry run. However, any guidance is subject to ongoing discussion and change as both CEIOPS and FSA requirements become clearer.

Lloyd's considers the dry run process a "transitional phase" between the current ICAS regime and the Solvency II required position and would expect it to be an iterative process of submission, review, feedback and guidance.

This guidance document covers the following:

- scope of the dry run process
- definition of the dry run and its individual phases
- approach to the review and timelines for both Lloyd's and agents
- link with current ICAS requirements
- implementation plan requirements

Scope of dry run process

The dry run process will apply at syndicate level rather than at agent level, although Lloyd's recognises there will be common elements across syndicates managed by the same agent. The dry run requirements will cover all syndicates active for 2010 including Life and existing RITC syndicates. It is not currently envisaged that the dry run will apply to any pure run off syndicates as at 31 December 2009, where it is expected with reasonable certainty that the syndicate will have closed by December 2012. However, for run off syndicates where this is not the case, Lloyd's will review individual cases and may require the run off agent to comply with some or all of the dry run requirements. Any syndicate going into run off during the period of the dry run process will still be expected to adhere to the dry run timetable.

Solvency II compliance for new syndicates will be dealt with as part of Lloyd's new syndicate application process and individual timetables for full operational models will be agreed as appropriate. Lloyd's will expect new syndicates under an existing agent to be able to comply with requirements on an earlier timetable than will be applied for a new managing agent.

Lloyd's review will consider proportionality based on syndicate risk profiles, risk types and market segments and will consider aggregated risks in this regard, with proportionality considerations not being restricted to just the size of individual syndicates. Further consideration needs to be given to the practicalities of how proportionality can be applied and this will involve further discussion between Lloyd's and the FSA. This guidance document is therefore unable to go into detail at this stage but further guidance will be issued in March 2010.

Definition of dry run

Lloyd's has sought to define what the dry run means for syndicates and Appendix 1 puts the dry run phase into context within the transition from the current ICAS regime to the Solvency II regime. Figure 1 illustrates the current ICAS regime, figure 3 the Solvency II regime that is scheduled to come into force on 31 October 2012 and figure 2 the transition that needs to take place over the dry run phase.

The review of this transition phase can be categorised into three separate constituents:

- qualitative
- quantitative
- regulatory

Each of these has been further broken down to facilitate a spread of work across the dry run period. In addition to easing resource constraints, Lloyd's believes that this thematic approach will allow better focus on individual elements and enhance comparison and benchmarking across both themes and syndicates, and should also help achieve consistency across reviews.

Qualitative Review

Lloyd's view is that there are two elements to the qualitative transition, as follows.

- expanding the current risk framework to the scope of a Solvency II compliant risk management system (illustrated by the yellow rectangles in Appendix 1, figure 2)
- expanding the current ICA, firstly to the scope of the Solvency II 'internal model' and, further, to the scope of the ORSA (illustrated by the green ovals in Appendix 1, figure 2)

This qualitative transition will need to be completed well in advance of 31 October 2012, with the ICAS regime continuing to run within a Solvency II framework over the period leading up to that date.

Quantitative Review

The quantitative transition relates to the switch from the ICA calculation kernel to the SCR calculation kernel. Whilst the qualitative phase above will address development and documentation of the model, no number review is expected to take place until 2011. Lloyd's currently expects to conduct a full "soft test" in late 2011 alongside the ICA process.

Although Solvency II implementation takes place on 31 October 2012, it is expected that the SCR will apply to 2013 capital requirements at Lloyd's whilst the ICA will be retained for capital setting up to, and including, the 2012 underwriting year. In practice, this is likely to mean that syndicates will be required to submit their first "live" SCR number to Lloyd's during the summer of 2012, based on their 2013 syndicate business plans.

Regulatory Review

The next Solvency II regulatory return required is QIS5, which is currently expected to begin in August 2010. Other requirements may emerge ahead of or subsequent to this, in due course.

Link with ICA process

The current ICAS regime remains in place until October 2012 and capital will continue to be set based on ICAs until the 2013 year of account. However, Lloyd's recognises that conducting the dry run alongside the current ICA review process is likely to present significant organisational and resourcing challenges for managing agents and is keen to minimise the workload arising from ICA reviews without compromising the quality of those reviews.

As outlined to agents recently, Lloyd's proposed review approach for 2011 and 2012 ICAs is that agents submit "lite" ICA documents with the key focus of the review being quantitative and around the movement from the agreed 2010 ICA whilst the dry run process will focus on the qualitative aspects. Whilst this will reduce the workload for agents on the preparation of full ICA documents for submission to Lloyd's, it will not exempt agents from the need to keep the ICA under continuous review, as required under ICAS.

It is intended that Lloyd's would apply a cut off date for significant model changes and full detailed feedback on all areas of concern will be given to agents on the 2010 review process. Full ICAs may be required by exception and Lloyd's may ask agents to re-run and submit 2010 ICA numbers to reflect any model changes, allowing an agreed start point for comparison against the 2011 ICA.

This will also place added focus on the pro forma information and the review of differences between agent assumptions and the outputs from Lloyd's own ICA benchmark model. Accordingly, agents should expect to be asked by Lloyd's to provide additional pro forma information where comparison was problematic for the 2010 ICAs.

Lloyd's is currently discussing this proposed approach to ICA reviews both internally and with the FSA and plans to communicate agreed requirements to the market by end January 2010.

DRY RUN REVIEW REQUIREMENTS AND TIMELINES

The sections below set out more detail on Lloyd's approach and timelines for each of the elements as described above and an overall timetable is included at Appendix 2.

Qualitative Review

Lloyd's anticipates that the qualitative element will present the biggest transitional challenge for agents and may require significant cultural changes. Lloyd's view is that the qualitative element should be proportional to the risk profile of the business and should focus on adding value whilst still satisfying regulatory requirements.

For these reasons, the dry run will initially focus on the qualitative deliverables and set out below are the three individual phases to the qualitative element.

Phase 1 - Preparation and planning

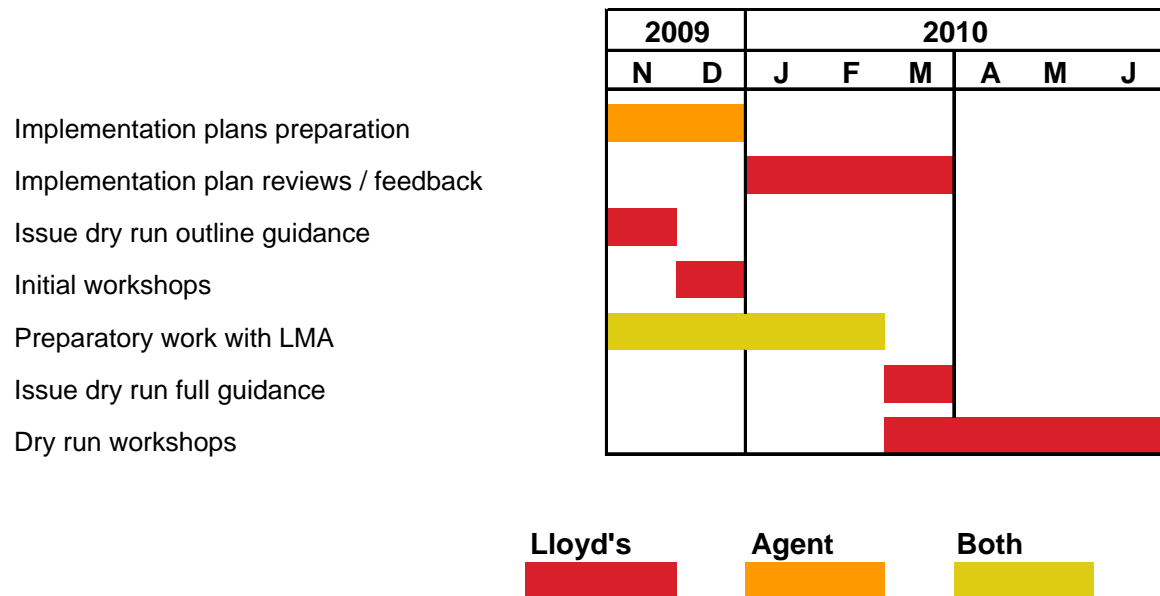
This initial phase, which is already in progress and runs to end March 2010, covers:

- production of a syndicate level Solvency II implementation plan by each managing agent (by 31 December 2009) with subsequent review, benchmarking and feedback on this plan by Lloyd's
- development of detailed dry run guidance for agents including pro forma policies on data, validation and model change and workshop sessions to discuss these requirements more fully

Lloyd's will work closely with the market via the LMA working groups to specify what will be required from each syndicate for the dry run, and also to produce pro forma documents for some of the requirements. These pro formas are intended to help agents in delivering the requirements and assist Lloyd's by increasing comparability in the review process. Use of these pro formas will not be compulsory but managing agents will be required to clearly map what they have delivered against the relevant pro forma in order to demonstrate complete coverage.

In the meantime however, agents should continue to prepare for the dry run requirements set out in Appendix 3 and should not allow production of these pro formas to hold up their planning as there is significant work to be done ahead of the initial dry run submission date in June 2010.

Timetable for Phase 1



Phase 2 - Delivery

This phase will run from April 2010 to March 2011 and will involve cycles of production, review, feedback and change in respect of all the deliverables identified in Phase 1.

Based on guidance and templates issued by Lloyd's at the start of this phase, managing agents will be required to demonstrate compliance with Solvency II, as set out principally in the following draft advice CEIOPS Consultation Papers (CPs):

- CP33: System of Governance
- CP37: Procedure to be followed for the approval of an Internal Model
- CP39: Technical Provisions – Best Estimate
- CP43: Data standards for technical provisions
- CP56: Tests and Standards for Internal Model Approval
- CP58: Supervisory Reporting and Disclosure

CEIOPS have recently issued a third tranche of draft advice as well as final advice on the CPs issued in April and July. Lloyd's is currently reviewing these papers in detail and an updated list of dry run requirements will be provided to agents during December.

As well as addressing all relevant CEIOPS advice, Lloyd's guidance will seek to follow as closely as possible the FSA's pre-application requirements for UK firms. Lloyd's expects all managing agents to be ready to begin submitting the required information in June 2010 and plans to stagger the timings for different elements of the review according to the timetable set out below.

The delivery phase has been further broken down as follows:

Stage 1

- system of governance
- model scope & use
- documentation

Stage 2

- statistical quality standards
- calibration, validation and profit & loss attribution
- external models & data

Stage 3

- technical provisions
- supervisory reporting & disclosure
- ORSA

This approach is intended to help spread workloads for both agents and Lloyd's and will allow all agents to influence Lloyd's view of each element. It will also help provide consistency in the review process and enhance benchmarking and feedback to agents. This phase will include technical workshops for agents based on each of these stages and ongoing support will also be available to agents via their Solvency II account managers.

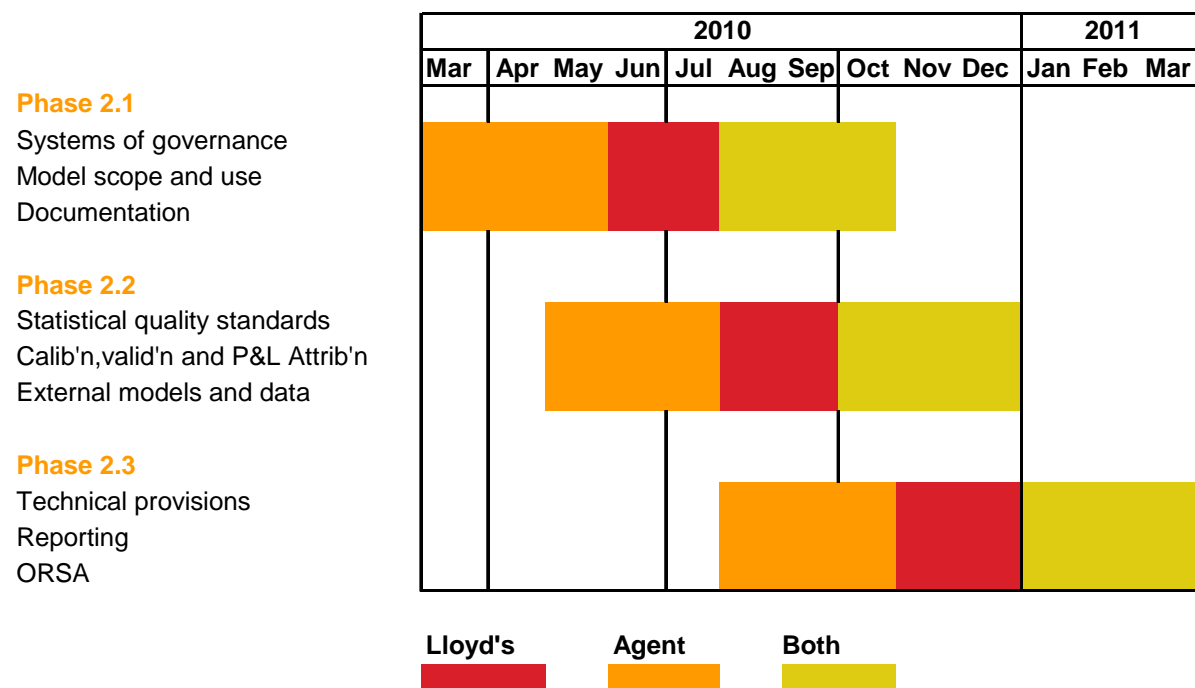
Appendix 3 provides a list of the relevant requirements under each of these stages which will need to be evidenced as part of the dry run process. These requirements should also be considered by

agents when preparing implementation plans. As highlighted above, this list will be updated and re-issued in December to include any changes arising from the latest CEIOPS papers issued.

Ahead of the first submission date, Lloyd's will require agents to complete an assessment of their current progress against the dry run requirements and will expect agents to keep this updated throughout the process. In order to assist with benchmarking and review, Lloyd's will develop a standard template for this assessment and this will be available with the detailed guidance issued in March 2010.

Delivery dates set out in this document are the latest dates agents are required to submit the relevant material to Lloyd's. However, where an agent anticipates that they will be ready to deliver ahead of this date, they should contact Lloyd's to agree timescales.

Timetable for Phase 2

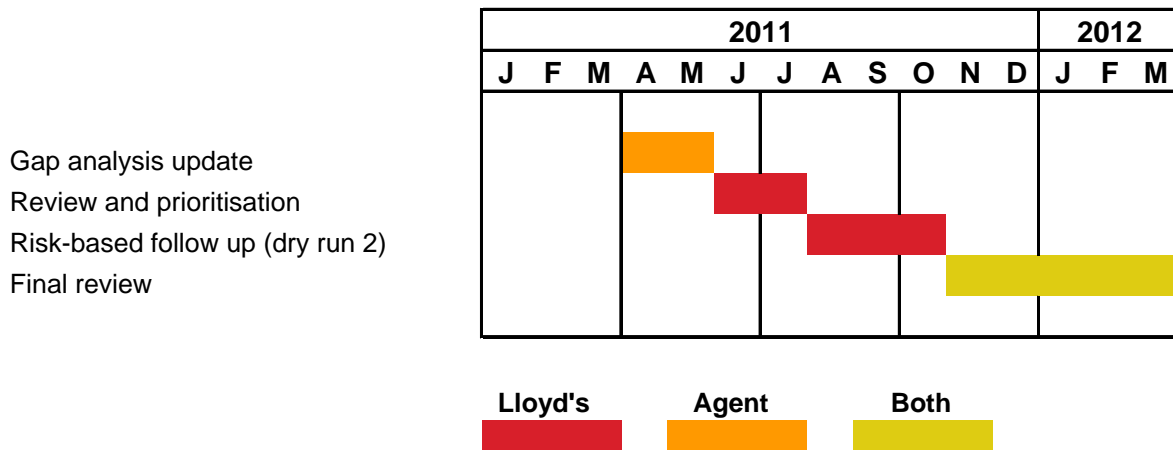


Phase 3 – Refinement and remedial action

Lloyd's anticipates that this final phase will run from April 2011 to March 2012. It is likely to begin with a requirement for an updated gap analysis from each managing agent and review of these updates by Lloyd's. Subsequently, Lloyd's intends to carry out a proportional and risk-based follow up on any themes or managing agents that are still identified as significant concerns.

This final review phase is intended to facilitate all agents reaching a stage of qualitative Solvency II compliance by end-March 2012. Timings below are indicative only at this stage and the full breakdown and timings of Phase 3 will be reviewed and agreed by Lloyd's following completion of Phase 2.

Timetable for Phase 3



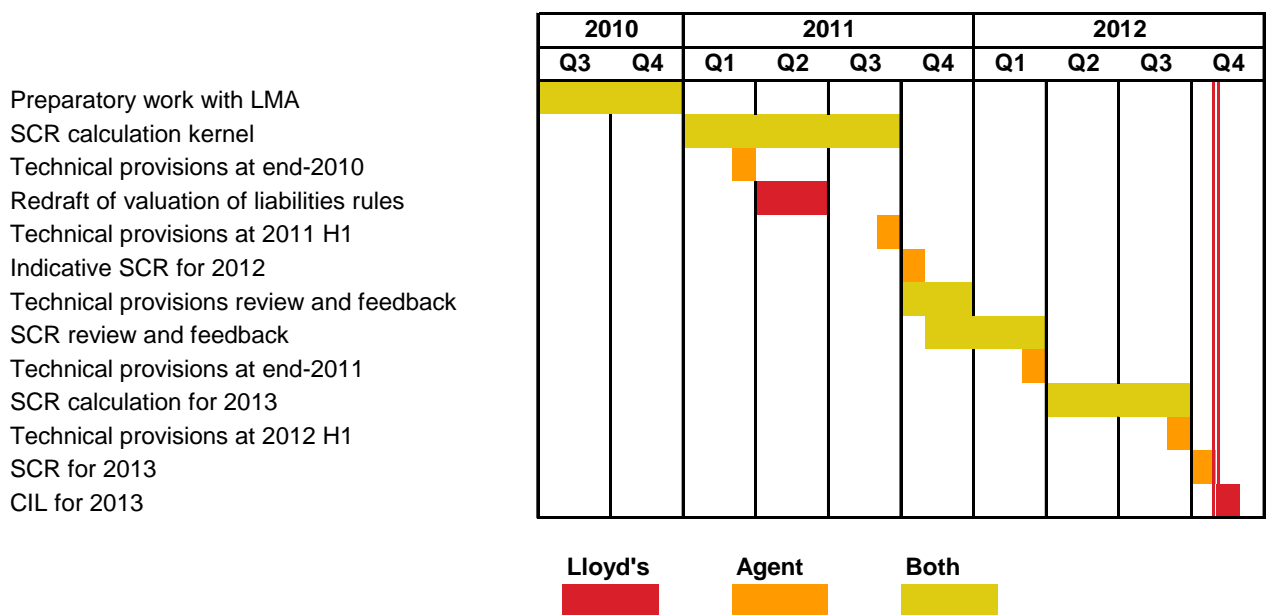
Quantitative Review

The quantitative component of the dry run is not scheduled to start until mid-2010, initiating with preparatory work carried out with input and support from the LMA. The focus of this preparatory work will be the development of standard stress tests and scenarios to apply to syndicate models, the development of benchmark portfolios to put through the models and specification of quantitative output requirements from the models.

It is intended that Lloyd's review of the SCR calculation kernels will begin in January 2011. The detail of the Solvency II quantitative review work is intended to build on the work of the preparatory phase and ICA reviews, and is likely to include the following:

- challenge of the SCR and other points of the modelled probability distribution forecast
- application of specified stress and scenario tests with review, benchmarking and feedback on results
- application of benchmark asset and liability portfolios with review, benchmarking and feedback on results

Quantitative review timetable

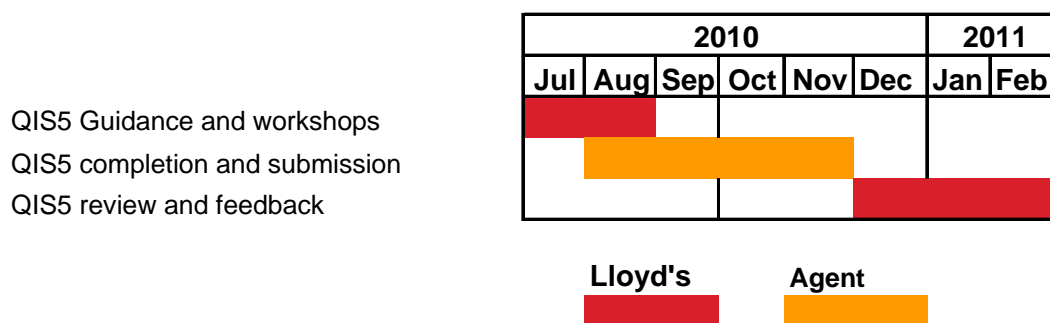


Regulatory Review

QIS5 is currently expected to start in August 2010 for completion in November 2010, and participation will be mandatory for all syndicates. QIS5 should be seen as a dry run of the standard formula SCR and both the quantitative and qualitative elements will need to be completed fully and beyond the “best efforts” basis of QIS4. Detailed guidance will be issued by Lloyd’s in due course and QIS5 workshops will also be held ahead of the required completion date.

QIS5 will also include the calculation of technical provisions on a Solvency II basis. As with QIS4, Lloyd’s will provide guidance and support to the market in delivering QIS5.

Regulatory timetable



IMPLEMENTATION PLANS

The implementation plan can be defined at a high level as a document/set of documents that demonstrate good organisation and control of the change programme to meet Solvency II requirements. The degree of complexity and detail required will depend on the scope and complexity of the changes being delivered, as well as the size of the syndicate and/or agent.

As set out in the scope of the dry run, requirements will apply at syndicate level and therefore implementation plans also need to be prepared at syndicate level. However, where an agent has more than one syndicate under management it will be acceptable to produce an overall plan with separate appendices for each syndicate setting out details of the syndicate specific aspects of the plan.

For third party syndicates under management ('turnkey' syndicates) it is important to ensure that the unique aspects of such arrangements are addressed adequately. For example, dealing with the difference in philosophies between the managing agent and the syndicate under management. This should include differing strategies and risk appetites and providing an 'exit' strategy to ensure that the syndicate under management remains Solvency II compliant when it starts to operate under its own managing agent.

Lloyd's Minimum Requirements

As a minimum, Lloyd's requires implementation plans to cover the following areas:

- programme structure and governance, including details of how progress will be monitored
- overall programme plan
- specific workstream/project plans showing tasks, dates and responsibilities
- delivery timetable for 2010, 2011 and 2012
- resource and budget implications
- evidence that gaps identified in the gap analysis have been addressed together with any feedback received from Lloyd's/FSA

Agents should also ensure that when preparing their implementation plans they consider the dry run requirements set out in Appendix 3.

Lloyd's recognises that many agents have already started work on their implementation plans and that a variety of different formats will be used across the market. In order to facilitate Lloyd's review of these plans, all agents must complete Lloyd's checklist (Appendix 4) to reference where different areas have been addressed within their implementation plan documents. If any of these areas have not been specifically addressed in implementation plans a brief explanation of the reasons for this should be provided. A separate checklist must be completed for each managed syndicate.

Syndicate implementation plans should be prepared on a stand alone basis and do not need to consider the wider market implications of Lloyd's itself or other syndicates not achieving internal model approval.

Implementation plans and checklists must be submitted to Lloyd's by 31 December 2009. Agents should ensure that the implementation plan has been reviewed by the board/board members prior to submission to Lloyd's.

Guidance on completion

To assist agents in the preparation of implementation plans, Lloyd's has set out below, and in the attached appendices, suggested content and formats. The following templates are provided as part of this document:

- **appendix 5** - template for workstream/project plans
- **appendix 6** - example workstreams
- **appendix 7** - delivery timetable template

The following guidance notes do not set out mandatory requirements for agents but are based on best practice approaches to programme/project management. They are designed to assist agents to prepare their implementation plans by providing an outline of the elements that should be considered under each of the above headings.

Programme structure and governance

Agents should consider the roles that will be required to ensure that they meet both regulatory requirements and their own objectives in terms of Solvency II. Clear roles and responsibilities should be established and these should be described in the implementation plans.

Typically a project such as Solvency II implementation would have separate individuals identified for the following roles:

- programme sponsor/senior responsible owner – usually a senior executive, accountable to the board for the successful implementation of the Solvency II programme
- programme manager – responsible for technical delivery and day to day management of the overall programme
- workstream leader(s) – responsible for day to day management and delivery of a specific workstream
- project manager(s) – responsible for specific project(s) within a workstream

It is important that the appointed individuals understand the responsibilities of their role and these should be documented within clear terms of reference and discussed with them. Where key roles are being supported by consultancy services this should be indicated within the implementation plan.

There should be a formal process of programme governance to ensure that objectives and plans are clear, progress is monitored regularly and any issues are escalated appropriately through the governance structure. This process might typically include a programme steering group to monitor overall progress and deal with issues and strategic matters. Composition of a steering group would generally include the programme sponsor, programme manager and other senior individuals within the agency. A similar forum may also be established for workstream/project leaders.

Whatever process is established, there should be clear terms of reference for each of the key governance groups which should be agreed by the group's attendees. It is good practice to keep a record of decisions and actions arising from the programme governance group(s) and there should be clear identification of triggers for escalation of issues.

Consideration should be given to how progress against the plan will be monitored, for example setting up a matrix to cover progress of the overall programme and individual workstreams/projects on a 'RAG' rated basis, for regular sign off by the programme sponsor.

Where the programme structure is complex, it may be helpful to include a structure chart in the implementation plan.

Overall programme plan

Lloyd's would expect the overall programme plan to cover the following:

- overall objectives – at a high level the overall objective should be to achieve full Solvency II compliance and have an internal model which meets Solvency II standards. Lloyd's is aware that many agents see their Solvency II project as an opportunity to go beyond 'minimum compliance' and achieve additional business benefit. Whatever the ultimate aims of the Solvency II project, whether meeting the minimum standards required for Lloyd's/regulatory requirements or achieving wider business benefits, agents should be able to articulate their view of how the business will need to operate in future to meet its Solvency II objectives and how this differs from current practice.
- the scope of the work required to make the changes needed, broken down into workstreams and/or projects. Example workstreams covering the areas that will need to be considered for the dry run are set out in Appendix 3.

Individual workstream/project plans

Given the scope of the work required for Solvency II, Lloyd's would expect the overall programme to be broken down into a number of more manageable workstreams and projects. A workstream would typically be broad in scope and would be broken down into a number of sub-projects. For example an internal model workstream might have separate projects covering technical provisions, documentation, validation etc. For a very small organisation, the overall programme might be delivered through a programme plan and a set of project plans without the need for individual workstream plans.

The template provided in Appendix 2 is an example format that could be used for a workstream/project plan. The notes below provide further detail on what might typically be considered for each element of the plan.

- objectives/success criteria – these should be stated as measurable outcomes/benefits. It is useful to identify which business function/area will benefit and when the outcomes/benefits will be required, eg 'to implement a governance structure for the business that meets the requirements of Solvency II by June 2011'.
- key deliverables – the new capabilities that the project will deliver to make the operational change possible, eg 'new structure for risk reporting in place and operational by June 2011'.
- scope (for a workstream, this would be broken down into projects) – the work needed to achieve each deliverable – this can be considered in stages such as define, design, build/create, test/prove, implement into live operation, and monitor/adjust whilst measuring and reporting outcome/benefit.
- a workstream/project plan showing tasks and milestones needed to create each deliverable – usually in spreadsheet or Gantt chart format – see the template in Appendix 4 for an example timetable format which could be used for an overall programme plan and individual workstream/programme plans. The plan should include all of the activities/tasks required to complete each stage of the project. The duration of each task should be planned on a calendar and constraints such as Lloyd's deadlines and dependency on other task(s) will help in shaping the plan.
- risks/dependencies – the situations or events that threaten delivery of the project. Given the interdependent nature of the workstreams/projects that might form part of any Solvency II programme it is important that links to other workstreams are recognised and dependencies highlighted – eg the calculation kernel cannot be developed in isolation of consideration of the use test and how the model will be used in the business.
- resource requirements – the time and skills required to fulfil the requirements of the plan. The workstream/project manager should understand the numbers of people of each unique skill type

required and how these requirements might change over the life of the project. Constraints on the availability of resource may mean that the project plan needs to be adjusted.

Appendix 6 sets out some example workstreams covering each of the areas that will need to be considered for the dry run. This is illustrative only and Lloyd's recognises that each agent will need to organise its Solvency II programme in the way that is appropriate for their structure and best enables them to achieve their objectives.

Delivery timetable

As a minimum Lloyd's requires agents to produce an overall delivery timetable for 2010-2012. Producing more detailed workstream/project timetables as well as an overall timetable will facilitate more effective project management. It is expected that timetables will be more detailed for 2010 than for following years – it may be appropriate to prepare the timetable by month for the first 12 months and by quarter for 2011 and 2012.

The template in Appendix 4 is a timetable in spreadsheet format that agents could use for the overall programme delivery as well as more detailed workstream/project plans. To assist agents the template shows key Lloyd's deadlines and includes one example project as an illustration. Agents should also ensure they have timetabled the necessary board meetings as required to meet their timetable of delivery.

Budget and resource plan

The budget and resource plan should consider both headcount and other costs (eg systems development) and should cover 2010-2012. The plan should show the total resources and budget for the programme broken down by workstream. Where resources are being drawn from existing employees, the impact on 'business as usual' should be considered and consideration should be given to the need to 'back-fill' key roles on a temporary basis. The resource plan should also identify where consultancy resource will be used.

Ensure that gaps identified in the gap analysis have been addressed

It is important that the implementation plans address all the gaps highlighted by the Solvency II gap analysis that all agents completed earlier this year. Agents should set out within their implementation plan how they have ensured that these gaps, together with any subsequent feedback received from Lloyd's and/or the FSA, have been addressed.

TRANSITION FROM ICAS TO SOLVENCY II

Figure 1 – ICAS regime

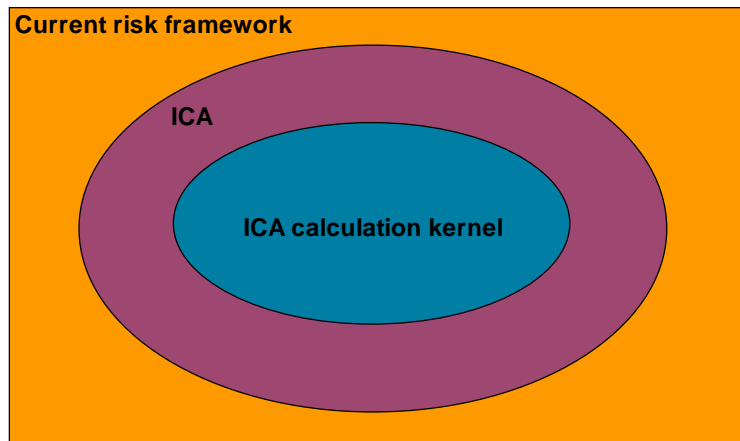


Figure 2 – dry run transition phase

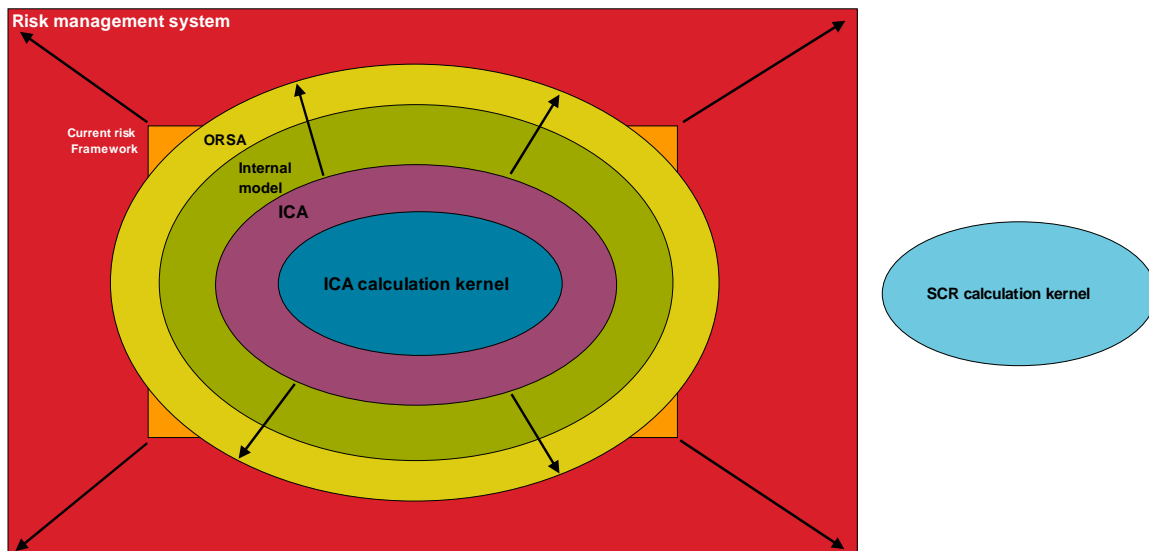
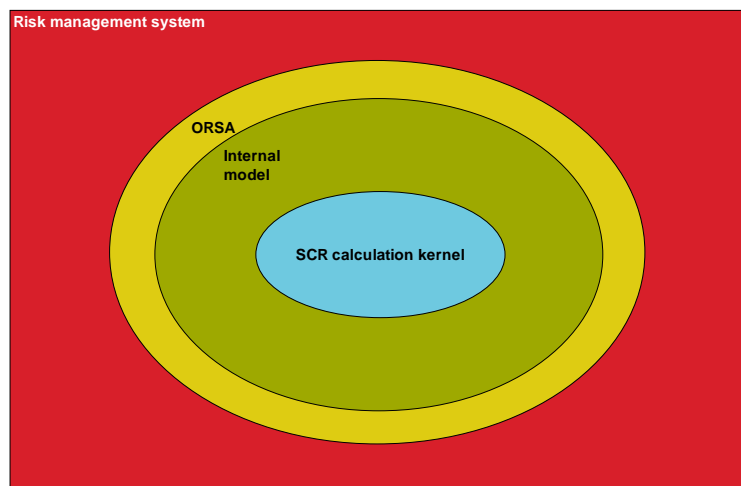


Figure 3 – Solvency II regime



DRY RUN HIGH LEVEL TIMETABLE

Qualitative

Phase 1 - Preparation

- Implementation plans
- Guidance & Workshops
- Preparatory work with LMA

Phase 2 - Delivery (Stage 1)

Phase 2 - Delivery (Stage 2)

Phase 2 - Delivery (Stage 3)

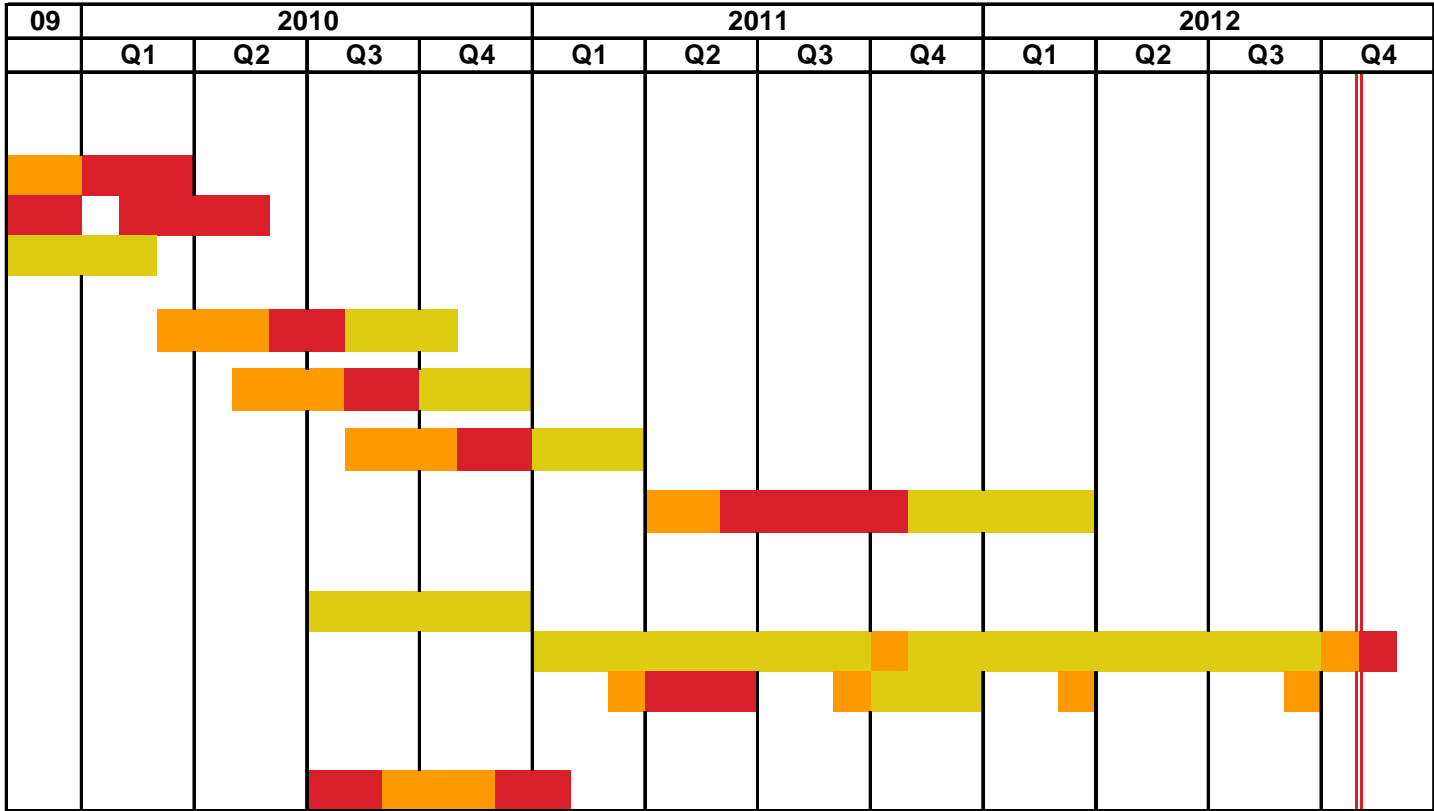
Phase 3 - Refinement

Quantitative

- Preparatory work with LMA
- SCR calculation kernel
- Technical provisions

Regulatory

QIS 5



Appendix 3

DRY RUN REQUIREMENTS

NOTE - Mapped to directive text issued March 2009 and CEIOPS Level 2 draft advice (CPs 39 to 62). Revised checklist will be issued in December 2009 addressing final directive text, latest draft advice (CPs 63 to 79) and final advice (CPs 39 to 62).	Level 1	Level 2	
	Article	CEIOPS consultation paper	Paragraph
System of governance			
General governance requirements	41	CP33	3.24-3.28
• governance framework			
• organisation structure and lines of responsibility			
• adequacy of skills and experience of board and staff			
• procedures for activities			
• procedures for decision-making			
• adequacy of information systems			
• adequacy of records and security of information			
• conflicts of interest			
• contingency plans			
• regular internal review of the system of governance			
• identification and management of emerging risk issues			
Fit and proper requirements	42	CP33	3.42-3.44
• fit and proper policies and procedures for directors and senior staff			
• identification of business managers and key function holders			
Risk Management	43	CP33	3.53
• risk management strategy			
• risk management policy			
• risk management processes and procedures			
• risk management reporting			
• underwriting procedures			
• reserving procedures			
• claims management procedures			
• ALM policies			
• investment policy			
• investment procedures			
• liquidity contingency plan			
• concentration list procedures			
• operational risk procedures			
• reinsurance strategy			
• reinsurance procedures			
• credit risk procedures			
• risk management function			
• risk management function			3.67-3.69
			3.82-3.85
			3.108-3.113
			3.119-3.120
			3.128-3.129
			3.143-3.146
			3.158-3.161
			3.169-3.170
			3.190-3.192
Internal control			
• Internal control policy	41	CP33	3.26
• internal control system			
• compliance function	45	CP33	3.224-3.228

NOTE - Mapped to directive text issued March 2009 and CEIOPS Level 2 draft advice (CPs 39 to 62). Revised checklist will be issued in December 2009 addressing final directive text, latest draft advice (CPs 63 to 79) and final advice (CPs 39 to 62).	Level 1	Level 2	
	Article	CEIOPS consultation paper	Paragraph
Internal audit			
• internal audit policy	41	CP33	3.26
• internal audit function	46	CP33	3.245-3.248
Actuarial function			
• technical provisions	47	CP33	3.295-3.309
• underwriting policy			
• reinsurance arrangements			
• report to board			
Outsourcing			
• outsourcing policy	48	CP33	3.343-3.348
• outsourcing agreements			
Model scope and governance			
Risk coverage	119.4	CP56	5.221-5.227
• mapping of modelled risks to the risk register			
• explanation regarding all risks not captured			
Risk mitigation techniques	119.6	CP56	5.263-5.265
• risk mitigation techniques included in model			
• validation against criteria for inclusion			
Model governance	118	CP56	4.46-4.53
• system of governance for internal model			
Use test	118	CP56	3.100-3.124
• how the model is used in decision making			
• how senior management demonstrate understanding of the model			
• how the model is integrated into the risk management system			
• triggers for full or partial reruns of the internal model			
Model change policy	113	CP37	3.61-3.78
• categorisation into major and minor changes			
• sub-categorisation into different components of the internal model			
• internal governance process for model changes			
• submission process for major and minor changes			
Documentation			
Design and operational details	123	CP56	9.53-9.66
• historical development of model			
• control framework			
• documentation database			
• consistency with Solvency II standards			
Theory, assumptions, mathematical and empirical basis			
• methods and techniques used			

NOTE - Mapped to directive text issued March 2009 and CEIOPS Level 2 draft advice (CPs 39 to 62). Revised checklist will be issued in December 2009 addressing final directive text, latest draft advice (CPs 63 to 79) and final advice (CPs 39 to 62).	Level 1	Level 2				
	Article	CEIOPS consultation paper	Paragraph			
<ul style="list-style-type: none"> assumptions, data and parameters used expert judgement used reasons for selections 	123	CP56	9.67-9.71			
Circumstances where model does not work effectively	123	CP56	9.72-9.73			
<ul style="list-style-type: none"> design and operational limitations methodological and data-related limitations lack of compliance with Solvency II standards 						
Model change documentation						
<ul style="list-style-type: none"> compliance checking quantification process 	123	CP56	9.74-9.75			
Statistical quality standards						
Probability distribution forecast	119.1	CP56	5.8, 5.47-5.57			
<ul style="list-style-type: none"> number of points modelled reasons for selection 						
Risk ranking	119.4	CP56	5.219-5.220			
<ul style="list-style-type: none"> risk ranking methodology 						
Methodological adequacy	119.2	CP56	5.101-5.103			
<ul style="list-style-type: none"> process used to determine distributions and estimate parameters selected distributions and parameters reasons for selections (suitability, relevance, simplicity etc) shortcomings in methodology and how dealt with 						
Data dictionary				119.3	CP56	5.174-5.175
<ul style="list-style-type: none"> source characteristics and usage of all data (internal and external) 						
Data policy	119.3	CP56	5.176-5.186			
<ul style="list-style-type: none"> data quality criteria and thresholds data quality review process process for use and validation of expert judgment to complement or substitute data process and standards for data updates 						
Dependencies				119.5	CP56	5.251-5.256
<ul style="list-style-type: none"> process for identifying, quantifying, challenging and reviewing dependencies selected dependencies reasons for selections 						
Financial guarantees and contractual options						
<ul style="list-style-type: none"> identification of financial guarantees and contractual options modelling methodology for each 	119.7	CP56	5.272-5.274			
Future management actions						

NOTE - Mapped to directive text issued March 2009 and CEIOPS Level 2 draft advice (CPs 39 to 62). Revised checklist will be issued in December 2009 addressing final directive text, latest draft advice (CPs 63 to 79) and final advice (CPs 39 to 62).	Level 1	Level 2				
	Article	CEIOPS consultation paper	Paragraph			
<ul style="list-style-type: none"> identification of future management actions governance arrangements for each modelling methodology for each 	119.8	CP56	5.293-5.301			
Non-contractual payments	119.9	CP56	5.304-5.108			
<ul style="list-style-type: none"> identification of expected non-contractual payments modelling methodology for each 						
Assumptions	119.2	CP56	5.115-5.118			
<ul style="list-style-type: none"> process for identifying and justifying assumptions identification of assumptions justification of assumptions vs. alternatives 						
Methodological consistency						
<ul style="list-style-type: none"> process for ensuring methodological consistency consistency with calculation of technical provisions consistency with business plan justification for any inconsistencies in methods or assumptions 	119.2	CP56	5.104-5.108			
Methodological credibility	119.2	CP56	5.109-5.114			
<ul style="list-style-type: none"> process for reviewing methodology to ensure current and credible link between model validation and model methodology review 						
Calibration and validation						
Calibration	120	CP56	6.49-6.59			
<ul style="list-style-type: none"> process for ensuring appropriate calibration 						
Profit and loss attribution	121	CP56	7.19-7.21			
<ul style="list-style-type: none"> profit and loss attribution methodology application of profit and loss attribution results to model validation and business decisions 						
<ul style="list-style-type: none"> governance process over profit and loss attribution output 						
Validation policy	122	CP56	8.122-8.142			
<ul style="list-style-type: none"> purpose and scope of validation validation tools used frequency of validation process governance of validation results limitations and future developments documentation independent review 						
Backtesting				122	CP56	8.143-8.149
<ul style="list-style-type: none"> backtesting process trigger events 						
Model robustness				122	CP56	8.150-8.157
<ul style="list-style-type: none"> process to establish robustness governance process over robustness testing output 						

NOTE - Mapped to directive text issued March 2009 and CEIOPS Level 2 draft advice (CPs 39 to 62). Revised checklist will be issued in December 2009 addressing final directive text, latest draft advice (CPs 63 to 79) and final advice (CPs 39 to 62).	Level 1	Level 2	
	Article	CEIOPS consultation paper	Paragraph
Stress and scenario testing	122	CP56	8.158-8.165
• stress and scenario testing process			
• governance process over stress and scenario testing output			
External models and data			
• identification of external models and data used in the internal model	124	CP56	10.31-10.37
• reasons why used and alternatives considered			
• extent of any non-compliance with articles 118-123			
• identification of risks associated with the use of external models and data			
• allowance for risks in internal model			
Technical provisions			
Valuation process			
• documentation of process for valuing technical provisions	75	CP39	3.30-3.35
• feedback loop			
• demonstration of robustness, appropriateness, relevance and adequacy	83	CP39	3.35, 3.358
• justification of selected valuation methods	75	CP45	3.95-3.106
Valuation methodology			
• segmentation basis	79	CP27	3.21-3.33
• identification and valuation of underwriting cash-flows	76	CP39	3.80-3.88
		CP30	3.27-3.32
	80	CP39	3.214-3.227
• identification and valuation of counterparty default exposures	80	CP44	3.15-3.23
• identification, valuation and allocation of expense cash-flows	77	CP39	3.89-3.108
• identification and valuation of guarantees and options	78	CP39	3.142-3.150 3.163-3.169
Data			
• data quality criteria and thresholds	81	CP43	3.55-3.81
• data quality management and review process			
• process for dealing with data deficiencies			
Assumptions			
• process for identifying and justifying assumptions	75	CP39	3.272-3.286
• identification of assumptions			
• justification of assumptions vs alternatives			
• backtesting of assumptions			
• demonstration of consistency with financial markets			
• demonstration of consistency with generally available (re)insurance data			
Validation			

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	Article	CEIOPS consultation paper	Paragraph
<ul style="list-style-type: none"> validation process 	82	CP39	3.340-3.353
Reporting & disclosure	35 50-55	CP58	
ORSA	44	CP33 [also see CEIOPS Issues paper, May 2008]	3.53

IMPLEMENTATION PLAN CHECKLIST

	Implementation plan reference	Explanation where not addressed in implementation plan
MINIMUM REQUIREMENTS		
Programme structure and governance		
Details of how progress will be monitored		
Overall programme plan		
Specific workstream/project plans		
Delivery timetable for 2010, 2011 and 2012		
Resources and budget		
Ensure that gaps in the gap analysis have been addressed		
TECHNICAL DETAIL		
For the following sections of the checklist agents should consider the detailed dry run requirements set out in Appendix 3		
System of governance		
General governance requirements		
Fit and proper requirements		
Risk Management		
Internal control		
Internal audit		
Actuarial function		
Outsourcing		
Model scope and governance		
Risk coverage		
Risk mitigation techniques		
Model governance		
Use test		
Model change policy		
Documentation		

	Implementation plan reference	Explanation where not addressed in implementation plan
Design and operational details		
Theory, assumptions, mathematical and empirical basis		
Circumstances where model does not work effectively		
Model change documentation		
Statistical quality standards		
Probability distribution forecast		
Risk ranking		
Methodological adequacy		
Data dictionary		
Data policy		
Dependencies		
Financial guarantees and contractual options		
Future management actions		
Non-contractual payments		
Assumptions		
Methodological consistency		
Methodological credibility		
Calibration and validation		
Calibration		
Profit and loss attribution		
Validation policy		
Backtesting		
Model robustness		
Stress and scenario testing		
External models and data		
Technical provisions		
Valuation process		

	Implementation plan reference	Explanation where not addressed in implementation plan
Valuation methodology		
Data		
Assumptions		
Validation		
Reporting & disclosure		
ORSA		

WORKSTREAM/PROJECT PLAN TEMPLATE

Workstream/Project	
Owner	

Objective
<i>Outcome/benefit to be achieved</i>
Key deliverables
<i>New capabilities that will be delivered</i>
Scope
<i>Broken down into stages for each subject area</i>
Key milestones
<i>Reference to delivery timetable (in spreadsheet/Gantt chart format)</i>
Risks/dependencies
<i>Situations/events that threaten delivery, including dependencies with other workstreams/projects</i>
Resources
<i>Time and skills required</i>

EXAMPLE WORKSTREAMS

Workstream	Scope
Risk Management & Governance	Risk management General governance requirements Fit & proper requirements Internal control Internal audit Actuarial function Outsourcing
Internal model	Model scope and governance Model change policy Documentation Statistical quality standards Calibration and validation External models and data Technical provisions
Reporting & disclosure	Implementation of process for reporting to regulator <i>[note that details of the broad areas of information that syndicates will need to provide to Lloyd's will be included in the detailed dry run guidance to be issued in March 2010]</i>
Use test/embedding	Use of the model in the business Integration of the model in the risk management system Board and senior management understanding of the internal model Process for approval of changes to the risk management system Policy for full/partial re-run of the internal model
ORSA	ORSA format and contents Demonstrate the link between risk and capital management Risk appetite Consideration of risks that fall outside the internal model Assessment of solvency needs at different confidence levels Longer term considerations (ie assessment beyond the 12 month time horizon used for regulatory capital) Frequency of reassessment

DELIVERY TIMETABLE TEMPLATE

DELIVERY TIMETABLE

Lloyd's key dates	2009	2010												2011				2012								
	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
Implementation Plan submission																										
Dry run - qualitative submissions																										
Dry run - quantitative review																										
QIS5																										
Programme plan																										
Example project																										
<i>Internal audit function</i>																										
Define requirements and scope																										
Develop framework and policy for internal audit																										
Identify resources, establish detailed procedures																										
Audit function in operation																										

Notes

1. The Lloyd's deadlines section includes deadlines highlighted to date as part of planning for the dry run and will be subject to ongoing revision/update
2. Example project included above is for illustrative purposes only and should not be taken as a guide to the timetable that agents will choose/need to follow

LINKS TO USEFUL INFORMATION

[Solvency II Framework Directive](#)

[CEIOPS Level 2 draft advice - CPs 39 to 79](#)

[CEIOPS Level 2 final advice on CPs 39 to 62 \(Nov 2009\)](#)

[CEIOPS Issues paper on ORSA](#)

[Lloyd's Solvency II - Guidance notes for Gap Analysis](#)

[FSA- Solvency II IMAP update \(Oct 2009\)](#)

FURTHER PUBLICATIONS EXPECTED EARLY 2010

CEIOPS Level 3 measures on pre-application process

FSA thematic review material

Lloyd's detailed guidance on dry run process

