

UCS Programme

Agenda

Introduction to the UCS Programme

- Context
- UCS Programme overview

UCS - Stream 1

- Scope & Principles
- Main evolutions
- Internal and external testing
- Schedule
- Launch strategy
- Next steps

UCS - Stream 2

- Scope & Stakeholders
- Environment
- Harmonised Model
- Schedule
- Preparation phase

Introduction: Context

Key Constraints	Implications
Highly competitive environment in the cash equity business	Significant fees reductions Business model harmonisation
Necessity to capture new business	Increased flexibility to timely offer new services
Readiness for interoperability	Use of standards Best market practices

All this calls for:

- Flexibility for an optimal time-to-market
- Cost reductions to support fee decrease

➡ Rationale for IT Transformation Plan (ITTP)

Introduction: ITTP Overview

ITTP has been devised to bring significant recurring costs reduction and to enhance business flexibility

ITTP is made up of:

- Technical part:
 - Infrastructure consolidation
 - Technology refresh
- Functional part: → UCS Programme – Stream 1 and Stream 2

Introduction: ITTP Overview

ITTP

INFRASTRUCTURE	CLEARING SYSTEM
<u>Technical part:</u> <ul style="list-style-type: none">• Data Centers rationalisation• Office Automation consolidation	<u>Functional part:</u> <ul style="list-style-type: none">• UCS Stream 1• UCS Stream 2
	<u>Technical part:</u> <ul style="list-style-type: none">• Technology refresh

Introduction: Technology Refresh

Objectives:

- Replace obsolete and expensive systems
- Increase capacity, scalability and flexibility
- Adopt the same low-cost and high performance technology for all the components of the clearing system

Benefits:

- Increase capacity (cash and derivatives) from 3 to 6 million trades/day
- Increase flexibility and scalability thanks to technology and virtualisation
- Have all the components of the clearing system running under the same operating system:
 - UCS natively designed for Linux
 - Peripheral applications ported from Unix to Linux

Introduction: UCS Programme

Stream 1 (Short-term IT consolidation)

- focuses on Continental Equities / Derivatives and delivers rapid benefits
- no member changes

→ Cost reduction

Stream 2 (Mid-term application & business consolidation (cash equity))

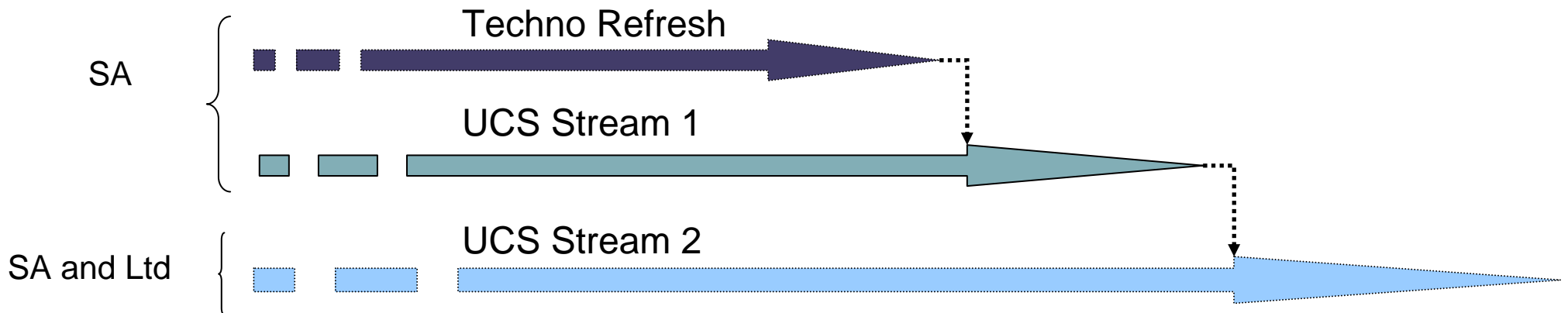
- focuses on harmonising and consolidating business systems and processes that will require co-operation from the markets and regulators
- Market practice harmonisation (TDN...)

→ Further savings

→ Added-value for customers: operating model harmonisation will allow members to generate internal cost savings through operational, technical and organisational synergies

Introduction: Technology Refresh & UCS

The technology refresh is a pre-requisite to the implementation of the UCS Programme



UCS Programme Stream 1

Renewal of LCH.Clearnet SA's Cash Equity and Derivatives Clearing Systems

Stream 1: Scope

Concerned Clearing Members:

- Clearing members of LCH.Clearnet SA
- Cash Equity Members and Derivatives Members

Markets:

- Continental Cash Equities: All NYSE Euronext markets, Bourse de Luxembourg, Equiduct, Smartpool
- Continental Derivatives: NYSE Liffe Euronext, BlueNext

Products:

- Cash Equities: Equities, ETFs, Bonds, Warrants
- Derivatives: Options and Futures (including commodities and BlueNext carbon contracts)

Stream 1: Principles

- Business model
- Service Offer
- Functionalities
- Connectivity means



unchanged

 No members impact/change

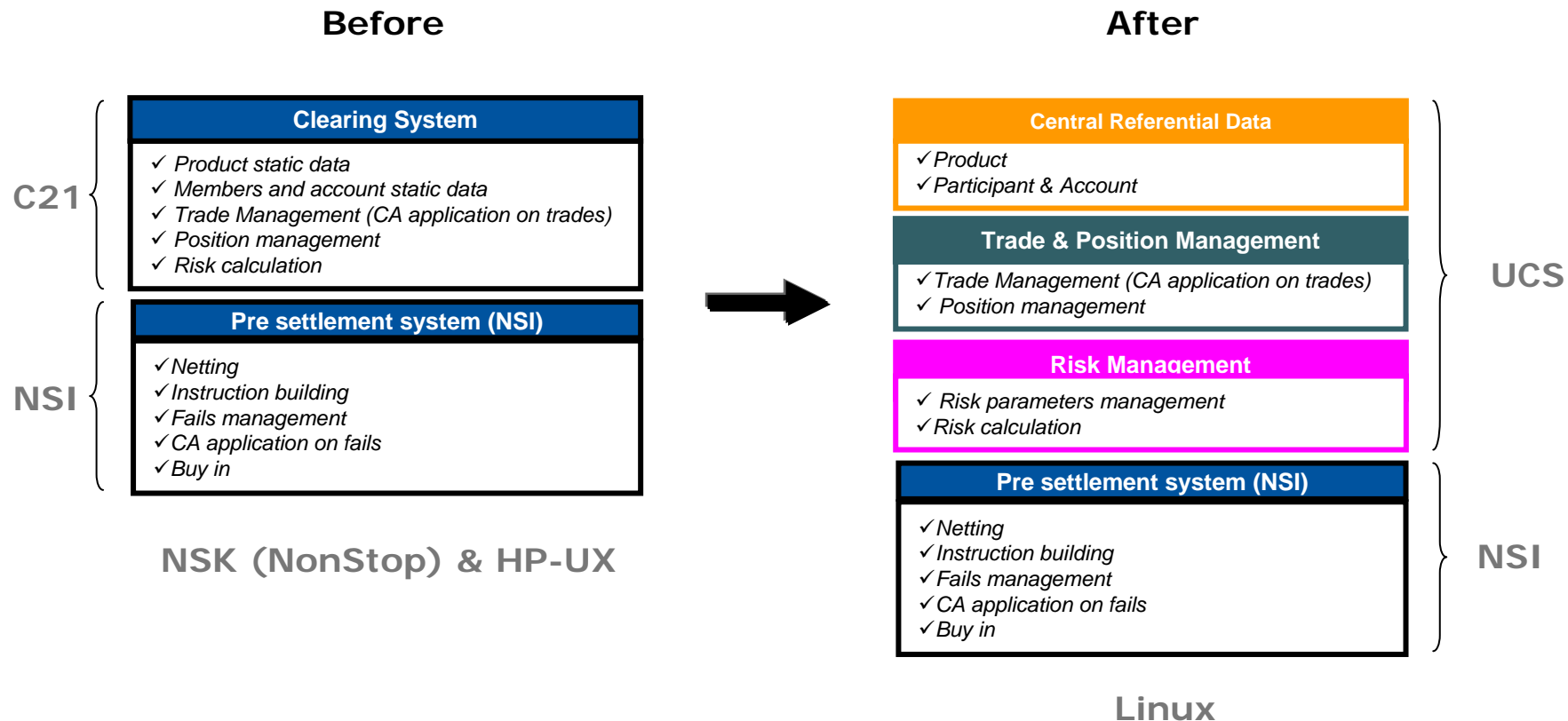
For operational constraints, cash and derivatives launches will not be synchronised:

→ 1: cash

→ 2: derivatives

Stream 1: Core System Evolution

- Stream 1 – No business model evolution (same functionalities)
- The new clearing system offers a more modular design and architecture



Stream 1: Main Improvements

- The current cash/derivatives clearing tool and risk management modules are replaced by modern technology (UCS)
 - functional and technical flexibility
- The cash equity and derivatives systems (including all the peripheral applications) are specialised, separated and independent
 - independency of the evolutions between the cash and derivatives business lines
- Improvement of the modular architecture
 - functional and technical flexibility

Stream 1: Internal Testing Principles

Deliveries in lots have been set up to allow an efficient testing process.

In order to guarantee a seamless migration for members, LCH.Clearnet SA has implemented an intensive testing policy:

- Exhaustive testing (detailed test scripts, unit tests, integration tests, non-functional tests, resilience tests, DR tests, performance tests)
- Full non-regression tests
- Pre-production and parallel run (3 weeks per business line)
- Automated comparison of the outputs of pre-production and production (trade, position, risks management, settlement instructions, buy-in etc...)

The internal testing period started early October 2009 and will run until the testing with members

Stream 1: Internal Testing Principles

Conclusion:

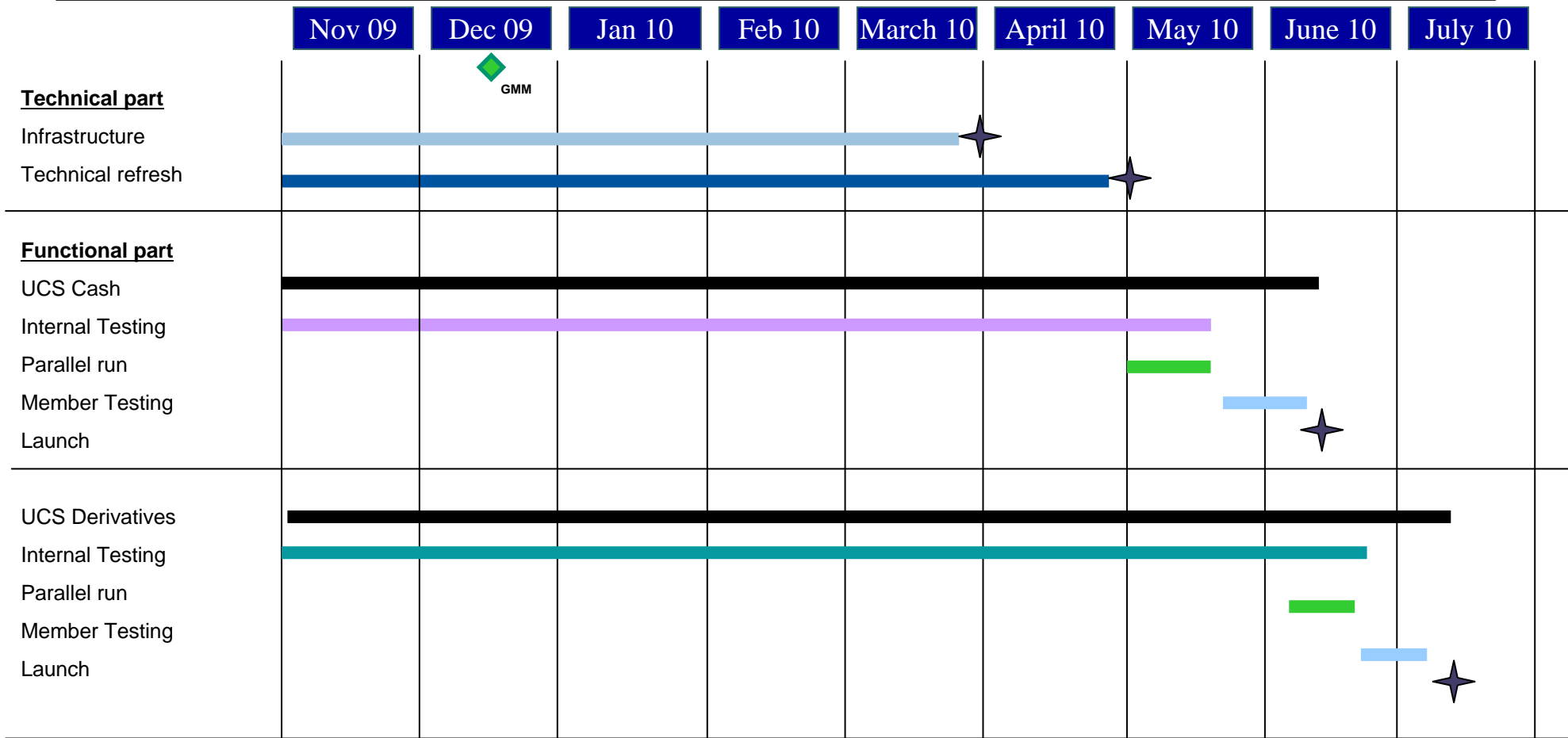
“No member impact” principles
+
intensive testing policy
=
Minimum external testing required

Stream 1: External Testing Principles

- 3 weeks of free tests by business line (cash and derivatives) will be proposed to the whole community of members and ISVs.
- LCH.Clearnet will focus on limited non-regression tests with pilot members and ISVs during the same period.
- 3 pilot members/ISVs by business line will be selected by LCH.Clearnet.
- A specific testing document will be available for pilot members/ISVs.
- Pilots will be provided with means/elements to perform their tests (referential, COE types, expiry dates...).
- Pilots will benefit from specific support/assistance from LCH.Clearnet SA. The other members will of course benefit from the usual support.

Stream 1: Overall planning

To be confirmed



Stream 1: Overall Planning

Assumptions and rules

- The current planning is based on an ideal project situation (no unexpected events)
- Experience has proved that the mid-July until end of August period is not appropriate for testing with members
- Any change in testing periods and/or launch caused by an unexpected event will take the above into account

Dates are not yet confirmed

Cash Equity target planning (ideal):

- Testing period: from 17 May to 10 June 2010
- Launch: 11 June 2010

Derivatives target planning (ideal):

- Testing period: from 21 June to 8 July 2010
- Launch: 9 July 2010

- An update could be provided as early as end of January
- Final dates will be confirmed by end of April

Stream 1: Launch Strategy Principles

- No launch rehearsal with members/ISVs for production
- Production on Friday morning → all members will be advised to check the result of the batch process on the Saturday following the go-live date
- Pilot members/ISVs will be required to perform an in-depth check with LCH.Clearnet SA Operations teams
- A dedicated support team will be available the Saturday following the go-live in production
- An Info flash will be issued to members/ISVs to confirm the launch dates.

Stream 1: Next steps

From a member perspective, next steps are:

- Pilots consultations and meetings
- Fine tune the testing and launch strategies
- Confirm the overall planning
- Next GMM: May 2010

Stream 2

Harmonised Business Model for Cash Equity across the Group

Stream 2: Objectives

The focus is:

- Cash equity business (exclusively)

The main objectives are:

- Implementing a harmonised CCP model for both UK & Continental markets
- Implementing a single cash equity platform across the Group

Stream 2: Products Scope

The Cash Equity products cleared by the Group are:

- Equities
- Bonds (exchange traded)
- Warrants
- ETFs (trackers)
- CFDs

Stream 2: Trading Venue Scope

Current

- Bourse de Luxembourg
- Equiduct
- IOB
- London Stock Exchange
- NYSE Euronext
- SIX Swiss Exchange
- Smartpool

Planned soon

- BATS Europe
- Chi-X
- Nasdaq OMX
- NYSE Arca
- ...

Stream 2: Stakeholders

- Trading venues
- (I)CSDs
 - Euroclear ESES, Euroclear UK & Ireland, Interbolsa, National Bank of Belgium, Euroclear Bank, Clearstream Luxemburg
- CCPs
 - SIX x-clear, EMCF, EuroCCP
- Regulators
 - FSA, AMF, AFM, CBFA, CMVM, CB, CECEI, BOE, BDF, DNB, BNB, BDP
- SA & Ltd Cash Equity Clearing Members
- Member Associations
 - AFME, Amafi, DACSI, FeBelFin, ...
- ISVs

Stream 2: Environment

Constraints

- Target 2 Securities: scope and timeline
- Euroclear's Single Platform: scope and timeline

Harmonised Model Assets

- Harmonised CCP Model (SA's User Consultative Group)
- Target Operating Model (Consortium)
- Functionalities inherited from UCS Stream 1

Stream 2: Harmonised Model Principles

Synopsis of the consolidated model (as expressed by members)

Function	CCP	CSD
Trade acceptance	✓	✗
Trade enrichment + novation	✓	✗
Members reporting	✓	✗
Position management	✓	✗
Risk management	✓	✗
Collateral management	✓	✗
Netting	✓	✗
Instruction building/shaping	✓	✗
Rebalancing	✓	✗
CA application (risk purpose)	✓	✗
CA application (settlement purpose)	✗	✓
Settlement	✗	✓
Fails Management	✗	✓
Buy-in	✓	✗

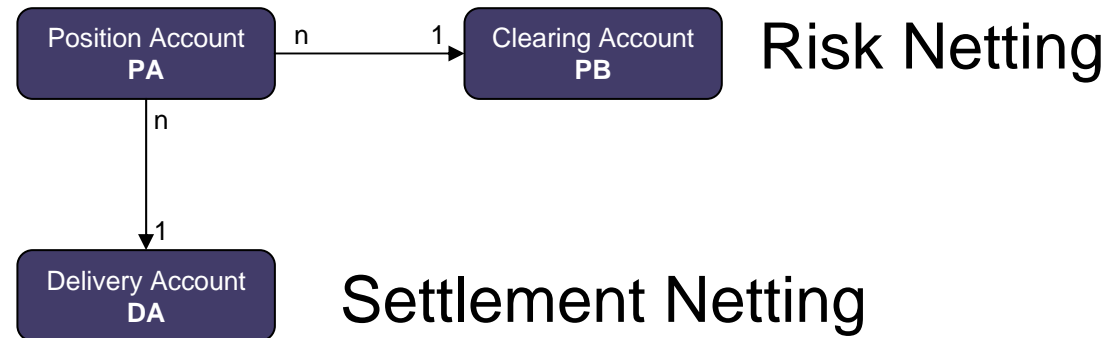
CCP native functions

Functions based on the interaction between CCP and (I)CSD

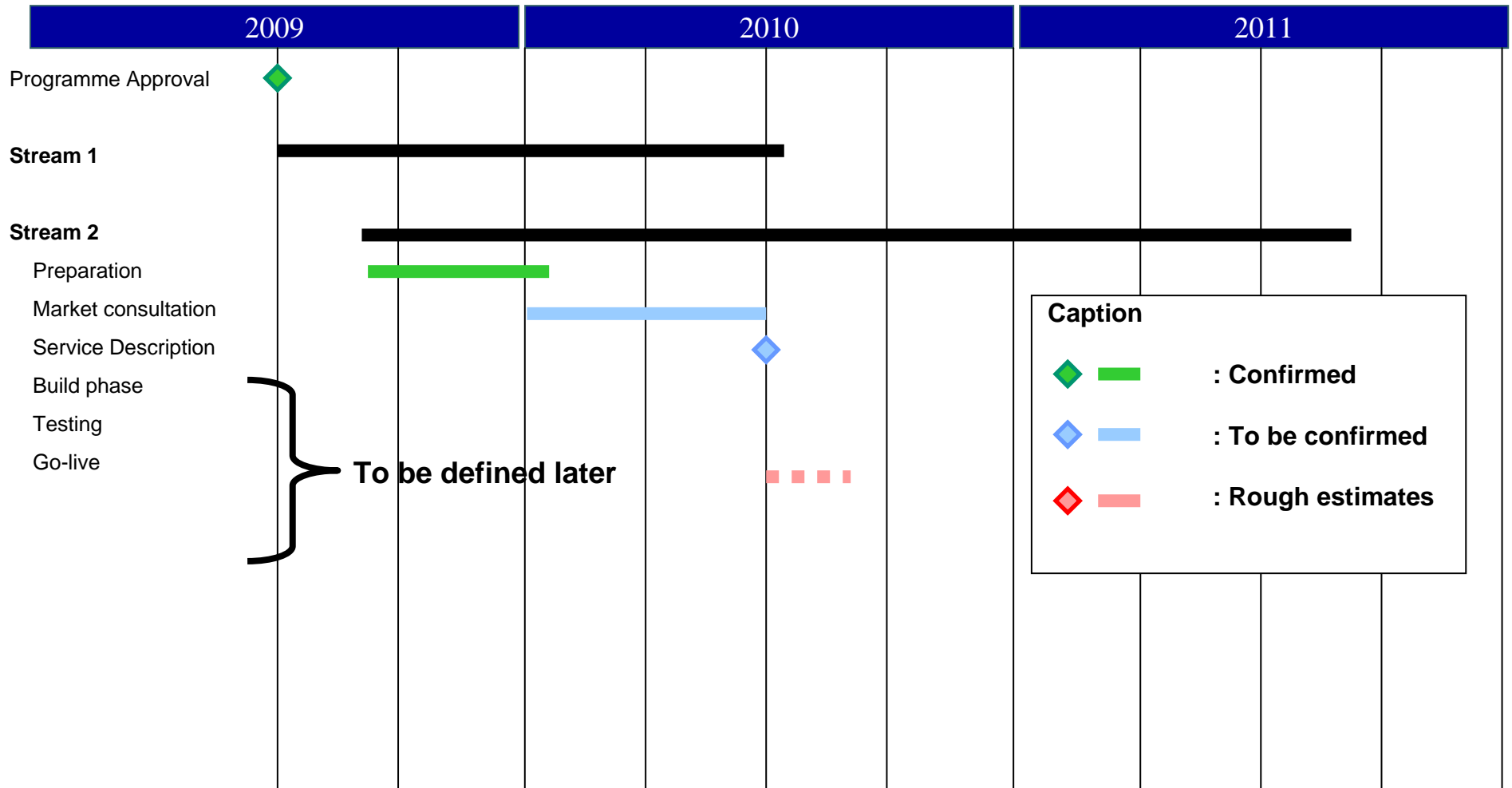
Stream 2: Key Requirements

The flexibility of the 3-tier account structure of SA proved to be useful and effective (especially for GCMs):

- necessary segregation of House and Client accounts
- need for optimising both margin calls and the number of settlement instructions



Stream 2: Schedule



Stream 2: Preparation Phase

Preparation phase of Stream 2 is on-going

- SA preparation
 - Documentation
 - Market consultation planning
- Ltd-SA joint preparation
 - UK specifics
 - Scheduling
 - MTFs
- Scheduling drivers
 - Proposing phased steps to control member impacts
 - Meeting members requirements regarding MTFs (consolidation of trade flows on a given security in one place – UCG Dec 4)

Contacts

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