SAP Blue Print

EPLF May 2002

At the EPLF meetings in 2001 the scope and strategic delivery elements of the Blueprint programme were supported. During the last 6 months Release 1.0 of the Blueprint has gone live in PDO, implementation projects are underway in 4 OUs, the global support organisation has been established and the Business Improvement Opportunities (BIO's) projects have leveraged the skills of the sector to deliver EP wide solutions. The key challenges for the next 6 to 12 months are summarised below:

<table>
<thead>
<tr>
<th>Key Issues/Challenges</th>
<th>Response required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Standardisation of processes and associated SAP functionality</td>
<td>Rigorous challenge of change requests and strong commitment to act globally</td>
</tr>
<tr>
<td>2) Establishment of a single production environment (Global hosting)</td>
<td>Persuade local stakeholders to join and address their concerns. Ensure international bandwidth is adequate</td>
</tr>
<tr>
<td>3) Accelerate the timeline for achieving an EP wide solution</td>
<td>Review timing of NAM, Expso and SEPCo joining the EP SAP Programme</td>
</tr>
<tr>
<td>4) Preparation of the business to optimally use the system</td>
<td>Strong commitment from the Management teams and Improved Business Implementation approach</td>
</tr>
</tbody>
</table>

Programme roadmap:

A number of minor amendments to the programme implementation plan have been made since the last EPLF meeting. In particular, BSE has moved forward 3 months, while Sakhalin has moved back by a similar timescale. The Venezuela implementation is now scheduled for 2004. These changes have primarily been driven by the need to better align the key events within the programme, to allow for support after go-live and the mobil and demobil times of personnel and other resources in between projects.

"EP Blueprinted by 2005"

In addition, a review of the timing of the implementation of Blueprint in NAM, Expso and SEPCo is underway, with a recommendation expected by the end of Q2 2002.

07/05/2002.

FOIA Confidential
Treatment Requested
In 2003 the programme will, in line with the recommendations of the OneSAP study, further develop its delivery model and toolkit to facilitate the implementation of the Blueprint for smaller OUs, NVOs and NOVs. As part of this exercise a roadmap will be developed for the implementation of the Blueprint for these organisations. The current implementation plan for the programme is now:

**Release 1.0**

Release 1.0 of the Blueprint went live in Oman on 5th January 2002 according to plan. Although good progress has been made on many fronts a recent QA observed a number of issues that need urgent attention. The main challenge for PDO remains to get the organization to fully utilize the system and accept ownership. The project team needs to pass on its role of process guardian to the Business. A recommendation to appoint a senior SAP Business Support Manager is being implemented. Other important recommendations were about the rapid resolution of the critical SIR's (System Investigation Requests), an improvement of the reporting on the systems performance in a broad sense, the use of control reports and the improvement of plant maintenance master data.

**Future releases and business Improvement projects**

The implementation project in Gabon is progressing well and is on schedule to go live in July 2002. The processes developed in Release 1.0 of the Blueprint were confirmed as applicable to Gabon and the move to the Blueprint processes is expected to be largely beneficial.

Impact assessment workshops are currently being held in SM-EP and SPDC/SNEPCo, with Norway and Brunel scheduled to begin in Q3 and Q4 2002 respectively. At this stage no process step outs have been identified by any OU, although a number of change requests have been raised to cover purely local partner, fiscal and language requirements. These change requests are, of course, rigorously challenged by the OU management teams and by the programme solution architects.

The Production Sharing Contract functionality has been developed and tested in close cooperation between SAP, the OUs and the Programme with the aim to have this module fully operational as part of release 2.

The Business Improvement Opportunity projects in Expro, NAM and SEPCo have leveraged the best practice across the sector to develop EP wide functionality in the areas of Services, e-Procurement and business warehouse reporting for plant maintenance processes. This functionality will also be implemented with Release 2 of the Blueprint at the end of this year.

**Support operations**

As mentioned in the November 2001 EPLF note, the maintenance of standardisation post go-live requires the establishment of a global second line support operation. This capability is being provided by SITI, primarily out of Kuala Lumpur, and has been operational since March. It is expected that significant savings will be made in this area when a critical mass of OUs have moved onto the Blueprint.

Agreement has been reached with the OUs on the approach to the identification and maintenance of global master data items. In particular, standardised global master data lists for materials, vendors and the chart of accounts will provide a platform for leveraging business benefits across OUs and increasing the comparability of results. The new procedures will come into force as Gabon goes live.

07/05/2002
Business case for the programme spend

The business case for the programme management, solution architecture and application support mobilisation costs has been further developed. This shows a total spend of $27m (including the $8.5m initial contribution in 2000/1) generating cost savings of $94m (all figures in real terms for 2001 to 2006). These savings will be realised by reducing implementation projects costs, second line application support charges and future development/upgrade expenditure. At 15% these figures give a NPV of $50m.

It should be noted that these costs and savings are incremental to those generated by the individual OU projects and exclude the benefits associated with having a global common systems platform. The latter benefits are expected to far outweigh the savings presented. The delays in implementing EBPro and the system constraints around the early start of NESS provide evidence of the gains that can be made by having a common systems platform in place.

Future challenges

Four OUs will go live with the Blueprint over the next 9 months. In order to ensure that the programme continues to be successful there will need to be a clear focus on two key challenges:

Delivering and maintaining a standard solution. The programme management, OU management teams and project teams will need to continually focus on delivering and maintaining a standard solution. This means rigorously challenging process change requests, working with local stakeholders to agree global items (such as a single production instance and global support operations) and further driving cost savings by maximising the re-use of previous materials and lessons learnt. In this context the programme is working closely together with a number of OU’s to address local stakeholders concerns regarding global hosting and the impact of that on local capabilities.

Acceleration of the timeline for achieving an EP wide solution. As stated above, a review will be conducted this quarter to determine the best timing for NAM, Expro and SEPCo to join the EP SAP Blueprint. Early 2003 work will commence to expand the platform to cover small OU’s, NVO’s and NOV’s.

Preparing the business for the Blueprint. The extent to which a business is ready to receive SAP is one of the major factors in determining the success or failure of a project. The experiences in, for example, NAM and PDO show that this aspect is probably the most challenging one for a SAP implementation. In an ambitious programme such as this, it is absolutely vital that we deploy practical and effective change management techniques in each OU. In particular, we need to ensure that we take full account of lessons learnt in previous implementations, especially in such areas as targeting key users on go-live and strong local super user presence and ensuring active support and focus of the management teams during and after go live.

Conclusion

The Blueprint Programme has made significant progress over the last 6 months and has a challenging year ahead of it. The foundations for success are now in place, but the continuing alignment and support of all the key stakeholders will be required if we are to deliver the business benefits promised by the Programme.
Global Exploration

Global Exploration faces two key challenges:
- rejuvenating the exploration opportunity portfolio,
- enhancing operational performance
This note describes these challenges and how they will be tackled.

1. Rejuvenating the Exploration Opportunity Portfolio
Over the past few years, new exploration project identification has been done on an opportunistic basis, often in support of Brownfield projects. The exception is in the Deepwater area, where a theme-driven approach, underpinned by a clear strategy and supported by a Centre-of-Excellence organisation, delivered a continuous stream of new plays and projects. This effort now needs to be expanded to systematically cover worldwide opportunities.

Objectives and Approach
New Exploration ventures and projects must deliver some 600,000 boe/d equity production by 2010 to fulfill the current corporate plan. This implies volume additions of some 10 billion boe SFR of which half must have been converted to reserves within that time frame.

In order to achieve this objective the new exploration venture portfolio must comprise both individually material ventures and projects (50,000-100,000 boe/d equity production each) and a sufficient number of projects to offset the inevitable disappointments. It must also be managed in such a way to cheaply and efficiently screen out the immaterial or inherently risky opportunities.

There are therefore two main issues: identifying and accessing material new opportunities in a very competitive and to a large extent crowded world, and managing a large number of ventures whilst minimizing both exploration funds at risk and staff time.

To meet the first challenge Global Exploration will:
1. Target basins with working hydrocarbon systems, both oil and gas, that can deliver at least 50,000 boe/d equity production.
2. Access basins only with benefit of properly conducted regional framework studies, and through the ensuing confidence in the investment decision, maintain sufficiently high equity, commensurate with the risk and reward profile.
3. Seek to build on existing positions with significant growth potential through exploration in countries with a current Shell presence, rather than entering new countries.
4. Develop a long-term plan and acreage position based on evolving technology.
5. Provide active global new opportunity portfolio management across regions and OUs focusing on meeting global targets.

In order to successfully execute this strategy and to achieve the 600,000boe/d target the opportunity funnel must, at any given time, contain:

1. 7-8 active material plays with a high venture POS (50% or more) and Shell share equity volumes of more than 500Mmbboe: High ranking
2. 15-16 plays with a medium venture POS (25-50%) and Shell share equity volumes of more than 200Mmbboe: Medium ranking
3. 18-20 plays with a low chance of success (25% or less) but with a significant chance of being de-risked at moderate exposure: Low ranking

* Venture POS is the Probability of a successful venture, using a simulation of the drilling campaign, hub or satellite cut off volumes and economic hurdle rates. It does not include political or other access risk.
This portfolio structure is illustrated below.

Realising 600,000 boe/d Equity Production by 2010

![Graph showing portfolio structure](image)

Clearly with a total of some 40-50 active ventures and projects, effective portfolio management is key. Furthermore the portfolio needs to be managed in such a way that new venture ideas are replacing those that cannot be de-risked, accessed or which fail. This high grading and optimization will be undertaken by the new EPX organization that will be both generating new venture ideas and prioritising regional studies on a global scale. Portfolio management will be done in full alignment with EPB.

The recent quantitative analysis of 380 plays worldwide now allows us to compare our portfolio against the above risk profile and numerical minimum project requirement.

**Basin and Play Analyses for 2003**

![Map of 50 Basins, 380 Plays](image)

**Current Status**

The current portfolio contains 6 high-ranking plays that meet materiality and production potential criteria:

- **Nigeria DW**: Mini Basin West and Fold Belt West (with growth potential in the Mini Basin and Thrust Belt East blocks)
- **USA Gulf of Mexico DW**: Eastern Gulf and Perdido
- **Norway DW**: More and Voring basins (17th round licence application)
- **Kazakhstan Pri-Caspian Basin**: (Kalamkas and aspired access opportunities)

However, the present portfolio has too few (11 out of 16) medium ranking plays and, furthermore, they tend to be of lower materiality in equity production terms ("50,000 boe/d equity class plays"). These plays include:

- **Brazil**: Campos Roller and Diapir and Santos Turtles (could be "High" with Enterprise addition)
- **Canada**: Sable Basin
- **China**: Bohai Bay post rift
- **Egypt**: DW NEMED
- **Gabon / Angola**: Outer fold belt and canopy
- **Malaysia**: DW: Toe Thrusts
- **Morocco**: DW: Rimella plus Enterprise Cap Draa addition
- **USA**: Alaska onshore (Colville Basin) and GoM Cretaceous inverted basins

Global Exploration, working with the OUs and regions, has to identify more plays in this category and will do so focusing on the growth areas listed below:

- **Brazil**: new basin / play opportunities outside established trends
- **North Africa**: in general but in particular Libya on and offshore (Sirte and Tripolitana basins)
- **East Africa**: where the Pemba basin off Tanzania has recently been identified as an interesting oil opportunity
- **The Arabian Plate**: with a view to rebuilding corporate exploration

---

**FOIA Confidential Treatment Requested**

V00300554

DB 29303
knowledge and networks in support of numerous ventures involving exploration the offshore.

*The Caspian:* in particular offshore Kazakhstan and Iran.

*The Western Arctic:* with potential in the USA and Canada in the offshore Beaufort and Mackenzie delta areas and possibly West Greenland.

*Deep water in general:* 8 unexplored submarine fans are currently being screened.

Finally there are a number of ventures, which currently rank in the lower venture POS category. These are characterized more by a lack of knowledge than high risk *per se.* In view of the need to progress a sufficient number of such opportunities to have a statistically sound chance of reaching our production target, these projects should be pursued at low cost to quickly determine if they can either be de-risked or increased in scope. In this case the investment decision needs to be based on our (technological or knowledge) ability to move them into the medium or high category before we start prosecuting the play. Examples include: the Indus DW offshore Pakistan, the Amazon DW offshore Brazil, and Saudi Arabia CV1/3. From a portfolio perspective we currently have too few of these plays (9/18).

**Exploration Projects and Ventures - active, aspiried, conceptual**

Way Forward

A corporate, global, overview of the totality of Frontier and Greenfield exploration opportunities has not been available to Shell for some time. It now is. The new capital discipline and an explicit ranking and portfolio management strategy are in place. The challenge now is to focus on the generation of globally material new exploration projects by excellent technical work, leveraging organisational capability across the global exploration community and rapid implementation of emerging differentiating technologies, such as in the area of non-seismic amplitude supported settings.

The new EFX-N team is a handpicked group of, initially, 11 explorers with strong and complementary technical backgrounds. The team will be complete in Q3 2002 and will identify, screen and progress new ventures by undertaking creative technical work, sponsoring new data acquisition, formulating and funding regional study projects and re-establishing access to corporate knowledge. It will work both with and through the evaluation capability of the existing and future exploration 'clusters' and Operating Units (see below), focusing on both unlocking future hot spots and screening Shell's blind spots. The team has committed by the end of 2002 to define and quantify new basin focus areas and produce a road map for sustained new venture generation endorsed by EXCOM.

It will also ensure that Shell, by end 2003, has an identified portfolio of new Greenfield ventures, which does indeed have the potential to supply, on a fully risked basis, 600,000 boe/d in 2010.

**New Exploration Opportunities - Focus Areas (illustrative)**

V00300555

DB 29304
2. Establishing Technical and Operational Excellence

The second key challenge facing Global Exploration is enhancing operational performance; do we have people with the right skills and behaviours, applying the right work practices and technologies, in the right places at the right time?

To address these issues, the EPX directorate includes a department (EPX-O) specifically tasked with enhancing and assuring the technical and operational capability of exploration organisations (OUs, NVOs and GSPs). The objectives and structure of this group are complementary to those of the new T&OE organisation under Brian Ward (EPG-O), with whom close co-operation will be maintained. The team will be led by an 'Activity Leader' (Head of Organisational Capability - Andy Wood), whose task will be to provide leadership in driving business performance improvement and recreating an exploration winning spirit. He and the leader of the EPX-N team (Bruce Levell) will respectively act as 'Discipline Leaders' for Exploration Evaluation and Regional Geology, and together with the discipline leaders for Geophysics and Production Geology will take shared ownership for the Geoscience skill pool.

Exploration Forum

In common with the other T&OE Activity areas, a restructured Exploration Forum is being established, comprising the 20 Group exploration asset managers and some 10 other exploration leaders who will work together globally to solve common problems and share best practices. This group met, for the first time since spring 1998, at the recent Exploration Look-back & Strategy Workshop in The Hague in late March, and will meet again in September (in conjunction with the Integrated Subsurface Conference). The Forum will work a number of key themes, centred on evaluation consistency and risk/uncertainty assessment, supported by an operating arm in EPX-O. This team - provisionally named 'Explore the Limit' - is currently being resourced to further develop and push through minimum standards and best practices for prospect evaluation and play execution. Work will begin in May to confirm the viability and suitability of adopting a 'limit' approach for the team, and to develop a recommended set of themes and a modus operandi. The exploration forum charter is currently being developed and endorsement will be sought by EPLF in December.
Value Assurance
Value assurance against agreed standards will be provided by a distributed network of respected practitioners operating within a structured framework of reviews and audits linked to performance and business imperatives. This new framework, currently under development, aims to provide a more simplified yet comprehensive suite of reviews 'with teeth' that provide adequate value assurance of the most important programme elements whilst eliminating the need for multiple and time-consuming reviews of the same prospects or plays.

Exploration Clustering
To address issues of organisational capability, the Exploration in the New Millennium FRD recommended the creation of a small number of recognised centres of critical mass able to provide the full suite of evaluation services. Their main objective was to improve success rates through:

- Ensuring consistently high-quality prospect and play evaluation
- Establishing critical mass for use and development of key skills
- Enabling more flexible staff deployment and resource allocation
- Improving knowledge sharing and technology transfer
- Reinforcing global behaviour
- Providing a focus for new opportunity identification and maturation

Proof of the concept has been successfully demonstrated for Deepwater in Houston. The SDS subsurface evaluation group is delivering according to this model, providing a high-quality service to assets whose combined programmes account for some 50% of the global annual exploration spend. This success can be attributed to a combination of factors:

- The scale of activity, which supports an establishment with critical mass
- Strong leadership who feel accountable for the total programme delivery
- The integrated lifecycle nature of the organisation

- A sense of common purpose and identity, built around sustainable activity levels
- A strong organisational emphasis upon core competencies leveraged across all activities

The capabilities of the SDS organisation are now being utilised by a team supporting the exploration activities in the Asia-Pacific region, co-located in Houston. In addition, the NW European OUs are increasingly working together as a single group, linking and sharing the distinctive capabilities of exploration teams in Assen, Aberdeen and Stavanger. Proposals are already well advanced to build on this 'confederation' model by bringing activity execution in these OUs under the direction and coordination of a single manager, reporting jointly to the relevant CEOs.

Implementation for the remainder of the portfolio, and in particular for several of the key growth areas in Africa, the Middle East and CIS outlined above, has been less successful. Two Rijswijk-based exploration clusters were set up as part of the existing EPT-AGI structure to avoid further proliferation of service providers. However, further work is required to bring the capability of these clusters up to the level provided by SDS.

The exploration capability of EPT-AGI can be enhanced by building upon the experience of SDS in Houston, thus creating two sister organisations that are able to provide a consistent product set to their customers. Steps are being taken jointly by EPX and EPT to bring the exploration execution activities carried out by existing and newly created regional teams (Nigeria, East Africa, North Africa, Arabian Plate, Caspian) under the leadership of a single Evaluation Manager. In addition, it is planned to build on the SDS core competency model, starting with the set-up of a group dedicated to non-amplitude supported (NAS) exploration plays, allowing further the rapid implementation of these emerging technologies.
Technical and Operational Excellence
(Pre Reading for EPLF May 2002)

Purpose of Note

This note is designed to bring the reader up to speed with respect to:

1. Objectives of T&OE
2. Concepts Surrounding T&OE
3. Organisation and Staffing
4. Next Steps

1. Objectives of T&OE

In today's world the Group's performance is measured on an absolute and comparative basis by the financial media. Results of these measurements have an effect on our share price, but more importantly perhaps, on our competitive positioning in an environment where profitable growth potential is fiercely competed for.

"Making the most of what we have" is a fundamental cornerstone to any EP strategy. It is recognized that whilst we have excellent staff working on a multitude of T&OE issues there is still an enormous amount of untapped potential. T&OE is all about ways to deliver short, medium and long term potential an order of magnitude more effectively than today across the whole EP process and across all EP operating companies.

The ultimate objective of T&OE is to facilitate the placement of motivated staff of the right competencies in our operations across EP. They would work within an environment where the application of best practices and the most appropriate technology, gleaned from across the world, was the norm. Systems would be in place via staff networking, computer networking and benchmarking data to continuously support and motivate the drive for excellence. T&OE is the start of a "formalised" global mindset in E&P operations.

2. Concepts Surrounding T&OE

T&OE has three thrusts to maximize the impact on the bottom line:

a) Optimisation of technical staff know how and the management of this key resource.
b) Optimisation of work execution
c) Management of cost structures

The first two are inextricably linked but separation serves to facilitate description.
2a Technical Staff Management (Technical Excellence)

It has been recognized for some time that Open Resourcing could not and did not, by itself, replace many of the former staff management systems and that staff management needed more proactive emphasis. As EP moved from an almost pure technical world into one requiring significant commercial and business skills there was a general feeling amongst technical staff that they were no longer valued. We have also lost much of our operational and technical skill base (the most striking example being maintenance) to contractors. Mentoring (technical) staff, giving them a discipline home and guiding their skills development is seen as a key activity to ensuring technical and operational excellence.

A first priority is the definition and implementation of an EP competency framework and the “Big Rules” that apply to its implementation (EP-HR is working on this). Thereafter together with the skill pool managers in HR, building up a detailed knowledge of individuals and advising them and operating companies regarding development and deployment will be a mainstay of activity in the “Technical Excellence” part of the business.

2b Optimisation of work execution (Operational Excellence)

The RTI, VAR, Strategic Cost Leadership, Global Fora and Global implementation technology teams working together with Operating Companies have amassed a wealth of knowledge over the past 2 to 3 years with respect to standards, best practices and potential areas for improvement. This knowledge covers the whole range of EP core activities. The first task of the T&OE organization will be to ensure that all these opportunities are collated and the key areas with maximum impact on the bottom line are applied where appropriate.

This information coupled with the Volume 1 data will allow the team to compile on an opco by opco basis a semi quantified list of opportunities on an absolute basis and, via benchmarking, on a relative basis. These opportunities would then be ranked by the team and, where appropriate by the Fora.

Opportunities Book For every Opco

Opco
SCI
Stop
Foa
RTI
VAR teams
Peer Reviews
Audits

Each Sheet signed off by CEO
And Dyman

V00300560

FOIA Confidential Treatment Requested

DB 29309