



HOW TO MITIGATE TRANSPORT RISKS

in Shell Chemicals

Cefic Seminar on Transport Risk Assessment
4 October 2013



Cautionary Note

The companies in which Royal Dutch Shell plc directly and indirectly owns investments are separate entities. In this presentation “Shell”, “Shell group” and “Royal Dutch Shell” are sometimes used for convenience where references are made to Royal Dutch Shell plc and its subsidiaries in general. Likewise, the words “we”, “us” and “our” are also used to refer to subsidiaries in general or to those who work for them. These expressions are also used where no useful purpose is served by identifying the particular company or companies. “Subsidiaries”, “Shell subsidiaries” and “Shell companies” as used in this presentation refer to companies in which Royal Dutch Shell either directly or indirectly has control, by having either a majority of the voting rights or the right to exercise a controlling influence. The companies in which Shell has significant influence but not control are referred to as “associated companies” or “associates” and companies in which Shell has joint control are referred to as “jointly controlled entities”. In this presentation, associates and jointly controlled entities are also referred to as “equity-accounted investments”. The term “Shell interest” is used for convenience to indicate the direct and/or indirect (for example, through our 34% shareholding in Woodside Petroleum Ltd.) ownership interest held by Shell in a venture, partnership or company, after exclusion of all third-party interest.

This presentation contains forward-looking statements concerning the financial condition, results of operations and businesses of Royal Dutch Shell. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements. Forward-looking statements are statements of future expectations that are based on management’s current expectations and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in these statements. Forward-looking statements include, among other things, statements concerning the potential exposure of Royal Dutch Shell to market risks and statements expressing management’s expectations, beliefs, estimates, forecasts, projections and assumptions. These forward-looking statements are identified by their use of terms and phrases such as “anticipate”, “believe”, “could”, “estimate”, “expect”, “intend”, “may”, “plan”, “objectives”, “outlook”, “probably”, “project”, “will”, “seek”, “target”, “risks”, “goals”, “should” and similar terms and phrases. There are a number of factors that could affect the future operations of Royal Dutch Shell and could cause those results to differ materially from those expressed in the forward-looking statements included in this presentation, including (without limitation): (a) price fluctuations in crude oil and natural gas; (b) changes in demand for the Shell’s products; (c) currency fluctuations; (d) drilling and production results; (e) reserve estimates; (f) loss of market share and industry competition; (g) environmental and physical risks; (h) risks associated with the identification of suitable potential acquisition properties and targets, and successful negotiation and completion of such transactions; (i) the risk of doing business in developing countries and countries subject to international sanctions; (j) legislative, fiscal and regulatory developments including regulatory measures addressing climate change; (k) economic and financial market conditions in various countries and regions; (l) political risks, including the risks of expropriation and renegotiation of the terms of contracts with governmental entities, delays or advancements in the approval of projects and delays in the reimbursement for shared costs; and (m) changes in trading conditions. All forward-looking statements contained in this presentation are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. Readers should not place undue reliance on forward-looking statements. Additional factors that may affect future results are contained in Royal Dutch Shell’s 20-F for the year ended December 31, 2012 (available at www.shell.com/investor and www.sec.gov). These factors also should be considered by the reader. Each forward-looking statement speaks only as of the date of this presentation, April 2013. Neither Royal Dutch Shell nor any of its subsidiaries undertake any obligation to publicly update or revise any forward-looking statement as a result of new information, future events or other information. In light of these risks, results could differ materially from those stated, implied or inferred from the forward-looking statements contained in this presentation.

The United States Securities and Exchange Commission (SEC) permits oil and gas companies, in their filings with the SEC, to disclose only proved reserves that a company has demonstrated by actual production or conclusive formation tests to be economically and legally producible under existing economic and operating conditions. We may have used certain terms in this presentation that SEC’s guidelines strictly prohibit us from including in filings with the SEC. U.S. Investors are urged to consider closely the disclosure in our Form 20-F, File No 1-32575, available on the SEC website www.sec.gov. You can also obtain these forms from the SEC by calling 1-800-SEC-0330.

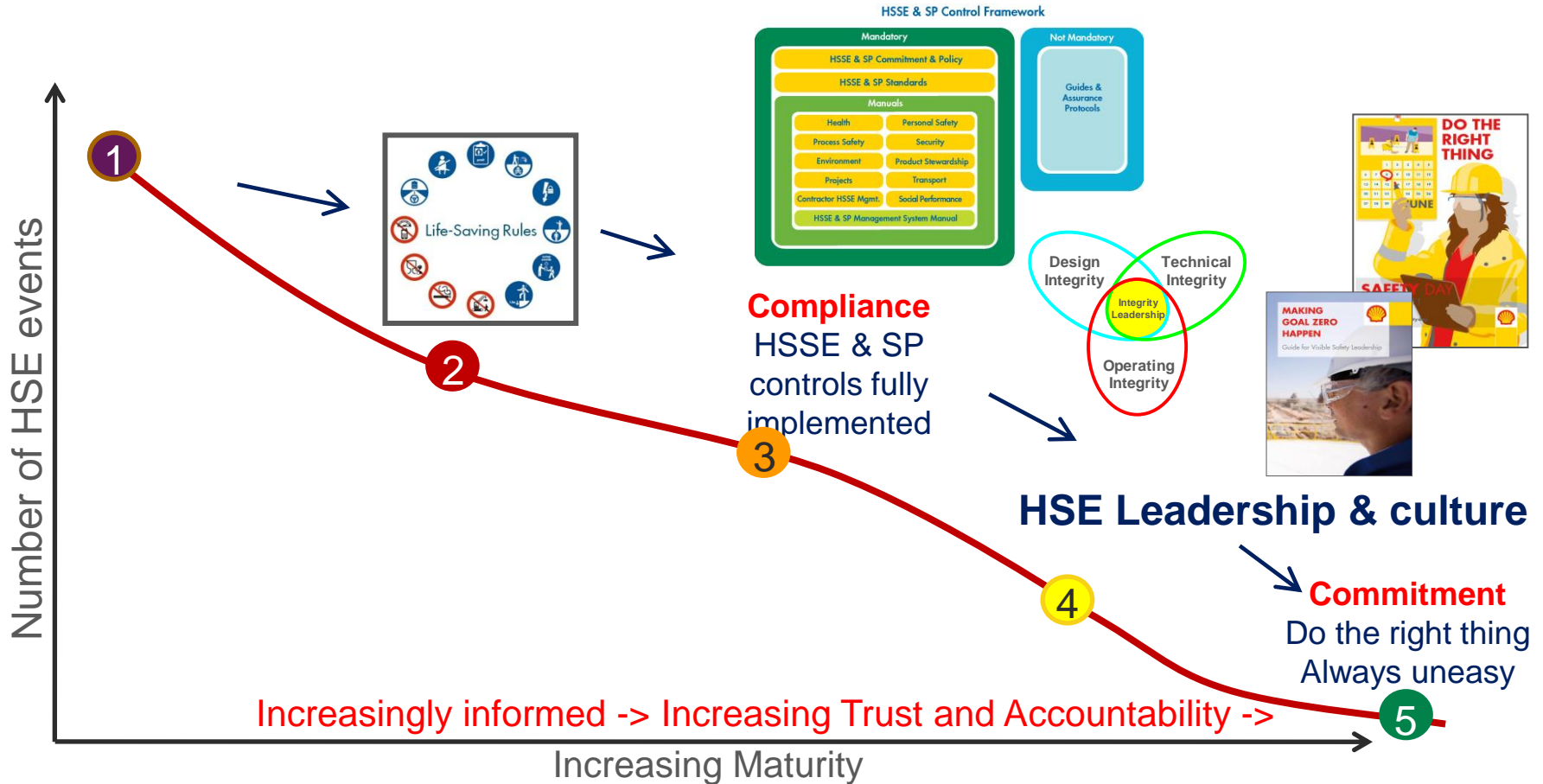
ABOUT SHELL CHEMICALS

We serve 1000 major industrial customers globally

In 2012 we:

- sold c.19 million tonnes of product
- had earnings of \$1.4 billion
- made 55,000 deliveries to customers globally

Shell is on a journey to Goal Zero



PATHOLOGICAL
Who cares as long as we're not caught

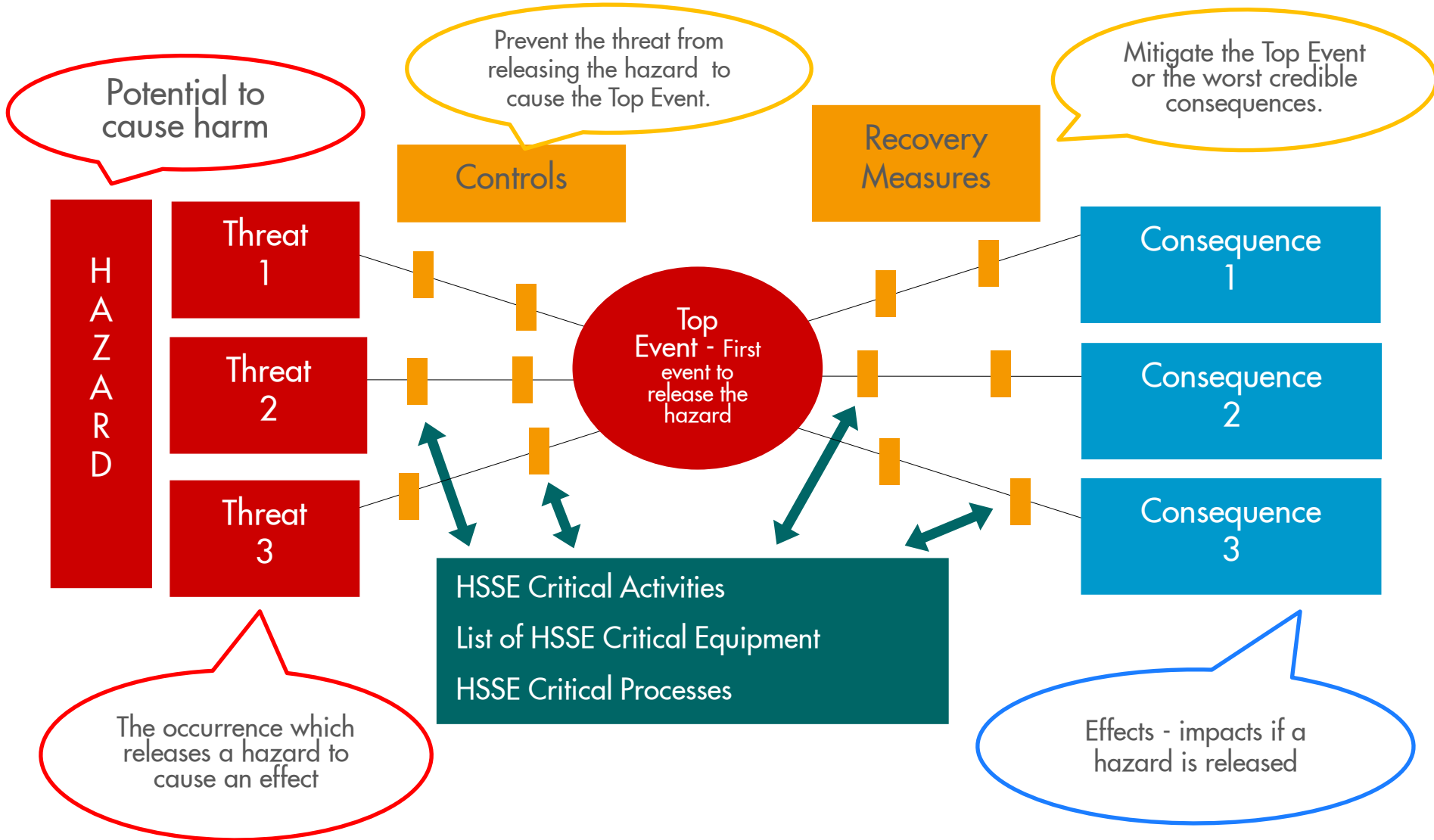
REACTIVE
Safety is important, we do a lot every time we have an accident

CALCULATIVE
We have systems in place to manage all hazards

PROACTIVE
Safety leadership & values drive continuous improvement

GENERATIVE
HSE is how we do business around here

BOWTIE – HAZARDS, THREATS & BARRIERS



BARRIERS

From loading at the Supply point to unloading at the Customer

- ❑ HEMP (Hazard and Effect Management Process)
- ❑ Minimum Requirements
- ❑ Contractor selection
- ❑ Contractor management
- ❑ Route / Supply Chain Risk Assessments
- ❑ Non-Standard Operations (NSOs)
- ❑ Learning from Incidents



GOAL ZERO

MINIMUM REQUIREMENTS (SELECTION)

- ❑ HSSE Management System
- ❑ Equipment
 - ❑ Design – Shell, Cefic, ISOPA etc
 - ❑ Maintenance
- ❑ Driver competence – Driving license, ADR, Driving experience.
Defensive driving, Roll-over, Product Knowledge
- ❑ Ensure that vehicle is safe to (un)load and load is secured
- ❑ Drugs & Alcohol policy
- ❑ Driving hours – Fatigue
- ❑ No Sample taking – CEFIC Safe Un>Loading) guidelines
- ❑ No direct unloading of flammables in IBCs or drum
- ❑ Journey Management Plan
- ❑ System in place to provide assurance on implementation of the minimum requirements



CONTRACTOR SELECTION AND MANAGEMENT

❑ Selection

- ❑ Commitment to HSSE and Shell Chemicals journey
- ❑ HSSE performance and meeting the Minimum Requirements (Incl. SQAS)
- ❑ If HSSE requirements are being met, financial and operational aspects are considered
- ❑ Limited sub-contracting

❑ Management

- ❑ HSSE is key aspect of performance review
- ❑ Deep-dive program to gain assurance on meeting Minimum Requirements
- ❑ Support on enhancing HSSE Performance e.g.
 - Front-Line Leaders program
 - Roll-over intervention program



TRANSPORT RISK ASSESSMENT WITHIN SHELL CHEMICALS

❑ Journey Management Plan

Basic assessment by the service provider on the logistic risks the driver might encounter while driving the route and the mitigations to manage that risk

❑ Risk Index

Index giving a relative risk estimate between supply chain options

❑ Route Risk Assessment

Qualitative detailed risk assessment of specific routes for selected hazardous products e.g. ethylene oxide

Track & Trace the product



NON-STANDARD OPERATIONS

The execution of non-standard operations without a proper assessment of the risks (Management of Change) leads to an enhanced exposure to people and the environment. To manage these situations, Shell chemicals has put a structured process in place called:

Non-Standard Operations, or NSOs. They include:

- Sample taking
- Unloading into drums and IBCs
- Customer tank too small
- Unloading into multiple tanks
- Drop off / parking of containers
- Rest product in tank or containers
- Transloading between containers
- Discharge directly into containers

Safety Briefing

Unloading from bulk equipment directly into drums/IBCs

In Shell, we are committed to pursuing the goal of no harm to people and the environment and, in support of that, we continue to promote the adoption of best practice in our industry.

There are certain operations that, based on our experience, we believe could pose drivers, operators or the environment at risk. These are classified as 'Non-Standard Operations' (NSOs) and this note provides you with more information on one of these operations.

What is the operation? Unloading from bulk equipment directly into drums or Intermediate Bulk Containers (IBCs) without using a fixed installation.

What are the risks involved? The potential health, safety and environmental risks involved in this operation are:

1. Loss of containment of product resulting from leakage, human error, malfunction of equipment or overfilling.
2. Human exposure and a potential for serious injury.
3. For flammable products, fire or explosion may result due to static electricity. This could lead to multiple fatalities and/or major asset damage to customer facilities or logistics equipment.

What measures are required for this operation to be carried out as safely as possible? To unload into drums or IBCs safely, a fixed drumming or IBC filling installation must be available. 'Fixed' means that an installation is equipped with a fixed discharge connection, is sited in an area with the required explosion/safety zoning and is in line with the technical requirements as set out in the table at the end of this document.

How can you help? By avoiding practices like this, we can work together to make the delivery of chemicals products safer. Please share this information with your own operations staff and reassure them that our overriding objective is safeguarding all who come into contact with our products.

Further questions: If you would like to discuss this specific NSO or the other operations that we classify in this way, please contact your account executive or a representative at your regional customer service centre. Find contact details at: <http://www.shell.com/chemicals/contacts>.



Working towards GOAL ZERO

A JOURNEY TO GOAL ZERO?

A Logistics Service Provider told us:

“ We have 50 % less spills while driving for Shell Chemicals than for any other customer. ”



