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National Chemical Emergency Centre
SCHC presentation, September 2016, Jon Gibbard

1. Why is chemical emergency response required
2. Global compliance requirements
3. China
4. Poison Centres (in Europe)
5. Best Practice
6. Case study
7. Takeaways



When an incident occurs



Physical Properties of substances

Hazards of substances

Risks – people, property & environment

Reaction e.g. with road surface

Proportionate advice

Personal Protective Equipment

First aid

Safe disposal

Cordon Distances

Tactical Response Options

“There’s been a industrial accident, we have **seven casualties.**”

“My **3 year old** has drunk wallpaper paste.”

“Someone’s sprayed fertiliser on my **wallabies.**”

“We’ve lost an ISO tank **overboard.**”

“There’s been a pavement **explosion.**”

“There’s 40 tons of ammonium nitrate in the **burning building.**”

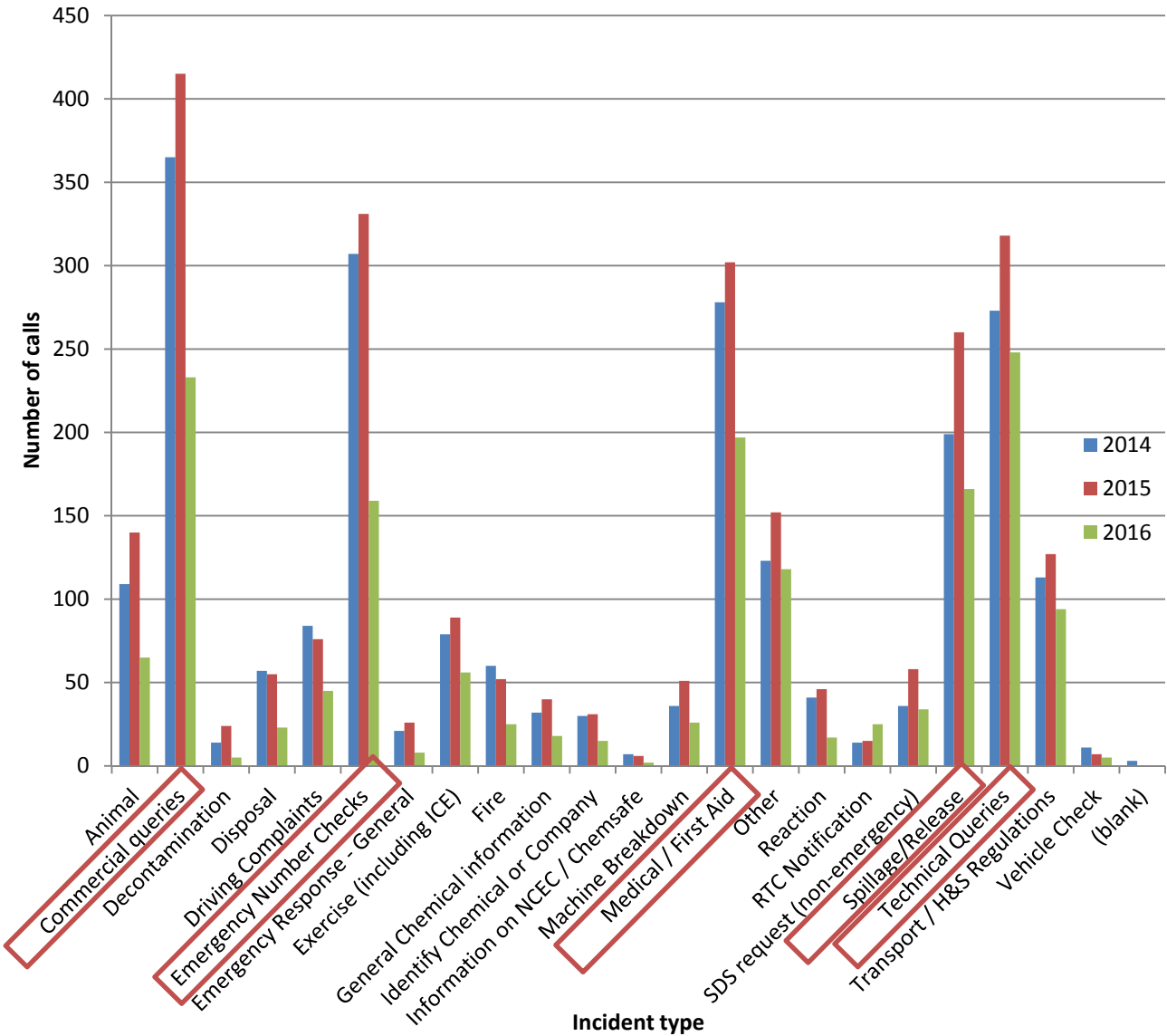
“The vehicle is carrying a **pair of missiles.**”

“A tractor has collided with a **liquid nitrogen tanker.**”

“We have a leaking package in the **aeroplane.**”

“If we run out of nitrogen the **whole town** is at risk.”

NCEC calls



Advice

NCEC offer telephone advice (Level 1) on:



First
aid



Material
disposal



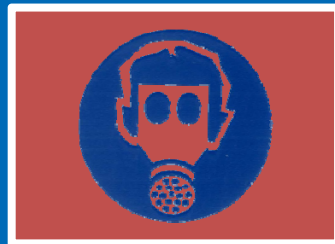
Industry
regulations



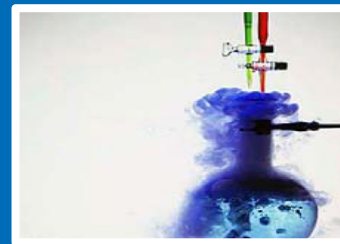
Substance
identification



Environmental
hazards



Suitable
PPE



Chemical
reactions



Incident
exercises

Our legacy

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Why is Emergency Response Required

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Compliance with regulations

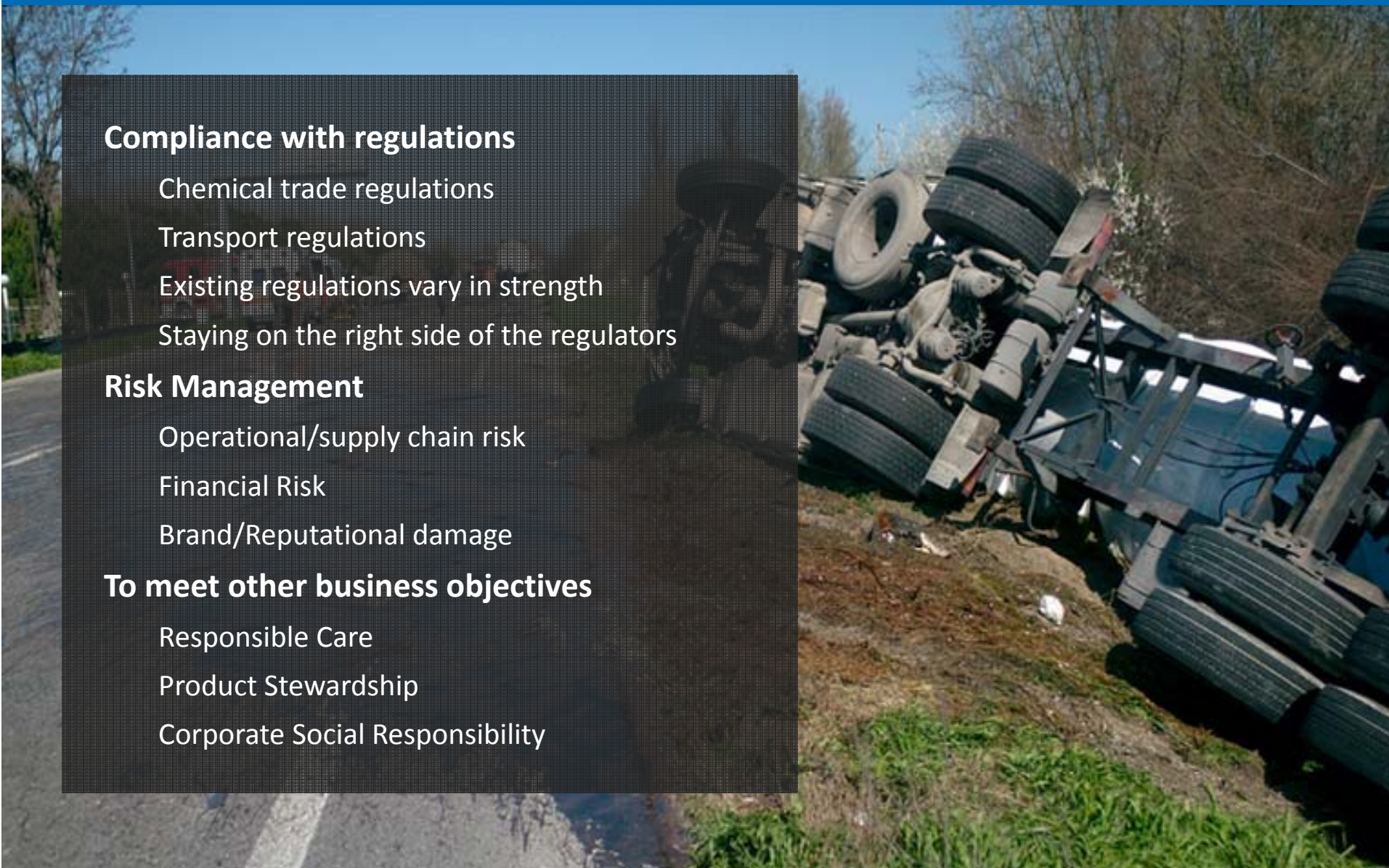
- Chemical trade regulations
- Transport regulations
- Existing regulations vary in strength
- Staying on the right side of the regulators

Risk Management

- Operational/supply chain risk
- Financial Risk
- Brand/Reputational damage

To meet other business objectives

- Responsible Care
- Product Stewardship
- Corporate Social Responsibility





Network of compliant international telephone numbers particularly China



Calls answered by experts - chemical degree minimum



Liability Protection



Worldwide Multilingual Support



Reliable and robust, office-based 365/24/7 and with 7,000+ calls per year.



Global compliance

Global Emergency Response Regulations – Road transport



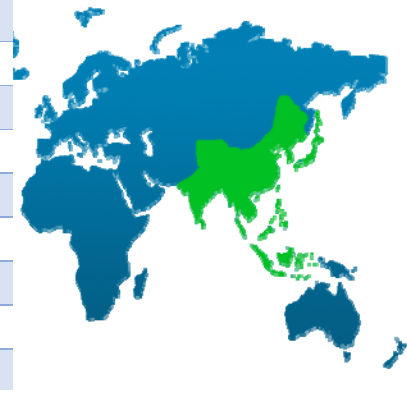
Region	Country	Emergency number required	In-country number	Local language response	24/7 requirement
North America	Canada	Yes	No	Yes	Yes
	Mexico	Yes	Yes	Expectation	Yes
	USA	Yes	No	Expectation	Yes
South America	Argentina	Yes	No	Expectation	Yes
	Brazil	Yes	Yes	Expectation	Yes
	Columbia	Yes	Yes	Expectation	No
	Uruguay	Yes	Unspecified	Unspecified	Expectation
Asia Pacific	Australia	Yes	Unspecified	Yes	Yes
	China	Yes	Yes	Yes	Yes
	Philippines	Yes	Yes	Expectation	No
	India	Yes	Expectation	Yes- English or Hindi	Yes
	New Zealand	Yes	Unspecified	Unspecified	Yes



Global Emergency Response Regulations – Supply



Region	Country	Emergency number required	In-country number	Local language response	24/7 requirement
America	Canada	Yes	No	Yes	Yes
	Mexico	Yes	Yes	Expectation	Not for 2015 G+ implementation
	USA	Yes	Unspecified	Expectation	Yes
	Argentina	Yes	No	Expectation	No
	Brazil	Yes	Unspecified	Unspecified	Unspecified
	Chile	Yes	Yes	Expectation	No
	Columbia	Yes	No	Expectation	No
	Uruguay	Yes	Unspecified	Unspecified	Unspecified
Asia Pacific	Australia	Yes	Yes	Yes	No
	China	Yes	Yes	Yes	Yes
	India	Yes	Unspecified	Yes	Yes
	Malaysia	Yes	Not for imports	Yes	Yes
	New Zealand	Yes	Unspecified	Unspecified	Yes
	South Korea	Yes	Yes	Yes	Unspecified
	Thailand	Yes	Unspecified	Unspecified	Unspecified
	Taiwan	Yes	Unspecified	Unspecified	Yes
Europe	European Union	Yes	No	No	No
	Switzerland	Yes	No	Yes	No
	United Kingdom	Yes	No	No	No
Middle East and Africa	South Africa	Yes	No	Unspecified	No
	Mauritius	Yes	Unspecified	Unspecified	Unspecified
	Israel	Yes	No	Unspecified	Unspecified



China

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New Legislation – Not yet harmonised

Medical Advice Only (Often only to Medical Professionals)

In-country Number only (No cross-border/global support)

No Chemical Spill Advice

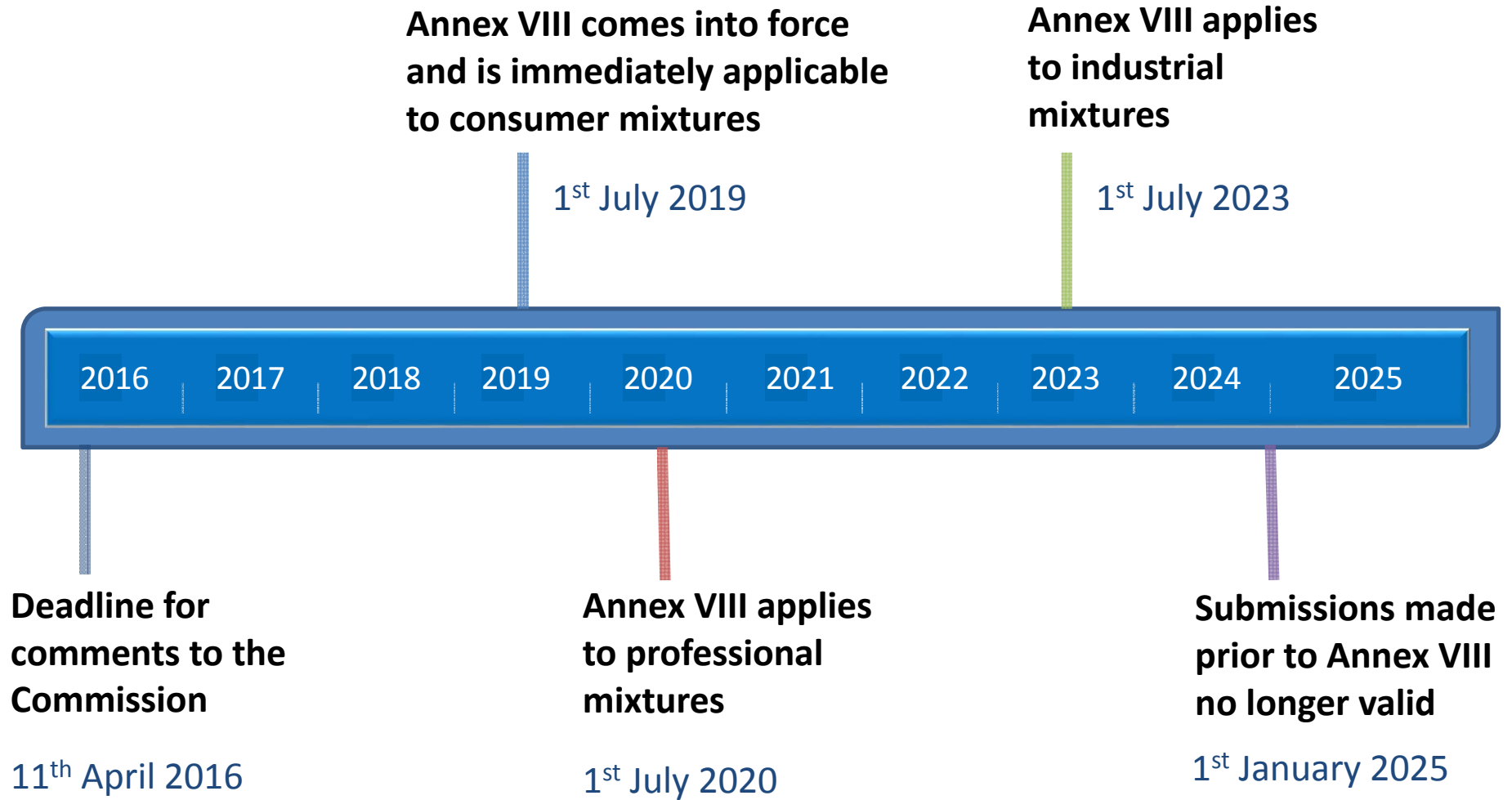
No Multilingual Capability

24hr Operations and Resilience Capability is Varied

Best Practice:

- Two Numbers on SDS section 1.4
- One Emergency Response number on Transport Docs, Labels, etc.

Registration timetable



Member state variation in implementation

	UK	Netherlands	Germany	France	Spain
Information format	SDS	SDS Full composition Data from medical-toxicological tests	Exact composition Product labels Instructions for use Precautionary measures Emergency instructions .XML index	Usage Brand name SDS Label Full composition Quantity on the market	Brand name Unique Identification code Classification Exact composition .XML index
Mandatory submission?	Voluntary (Best practice)	Yes, all products classified as hazardous	Yes, all products classified as hazardous	Yes, phased hazard submission over 8 years	Yes, phased usage submission over 2 years
Submission fee	Free	Free	“Free”	Submission free but pre-registration costly.	€30 for each new product
Fine for non-submission	No	Yes	Yes	Yes, €3,750 per product	Yes

Extract of Poison Centre information pack, NCEC 2016, one of a series of reports and white papers available on the NCEC website, [here](#).

Reduced submission for industrial products

- If a product is solely used on an industrial site then it may be eligible for reduced submission
- An SDS will suffice but this must be complimented with a **24hour emergency number** where additional product information can be supplied



REACH Summary

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- Use of numbers varies significantly.
- Registration does not guarantee access.
- Printing a number on SDS does not mean people can ring it.
- Only for health response
- Can you benefit from early submission with ER number?



Economics of submission

Approximate cost analysis for 24 Member States and participating counties based on the *current (Spring 16)* fee structure

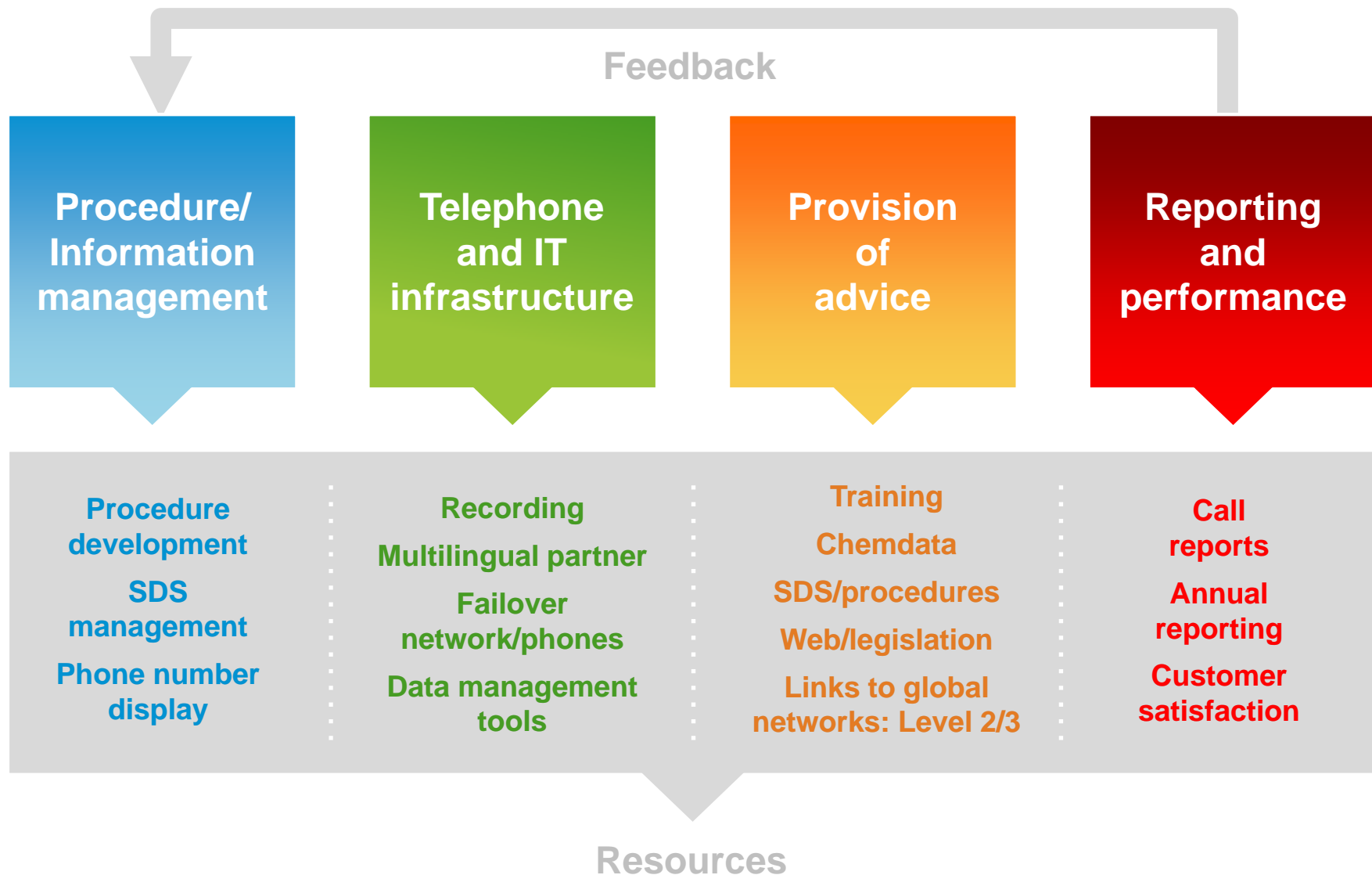
Malta and Lichtenstein are excluded as they have no appointed receiving body

6 Member States excluded as their fee information is not publicly available

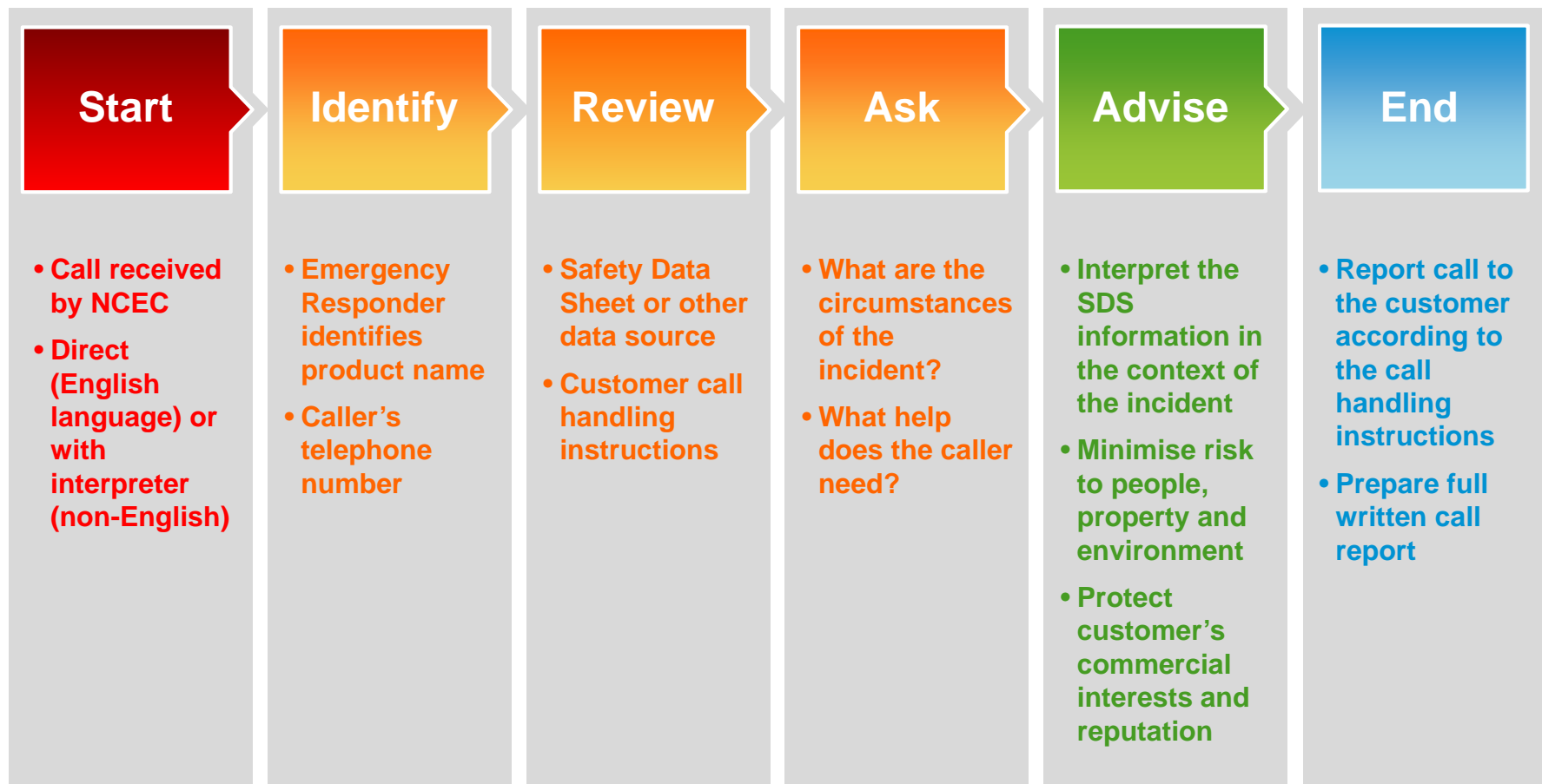
Notes	10 products	1000 products
22 Member states- inclusive of annual retainer	€ 3,377.40	€ 135,750.00
Belgium and Luxemburg included	€ 7,377.40	€ 535,750.00

Emergency Response | service structure

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Emergency Response | call process



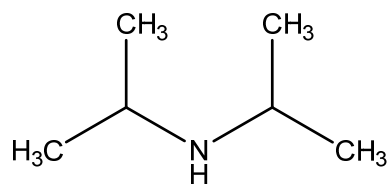
Poison Incident – January 2015

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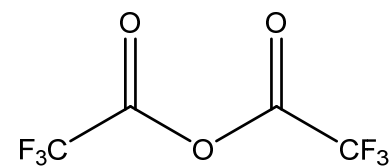
- Multiple chemicals were released during an industrial accident at a pharmaceutical manufacturing plant.
- 4 personnel immediately exposed.
- 3 person rescue team equipped with respiratory protection suffered minor exposure.
- Five chemicals were being used, but it's uncertain which were released.
- Symptoms relate to exposure via inhalation.
- Hospital staff need urgent treatment information.





Diisopropylamine

Corrosive
Colourless in air



Trifluoroacetic anhydride

Acutely toxic by inhalation
Corrosive
Resembles steam

Time critical – Seven people are in A&E waiting for treatment

Best practice from industry peers

Best practices:

- Auditing of customers
- Supply chain training (esp. hauliers) initiatives such as: permitting system, train the trainer, ride along, spot checks, driver/haulier of the year, training records, route reviews, route change reviews
- Removing drivers from the unloading process. Ensuring unloading sites understand their responsibilities inline with CEFIC guidance
- Monitoring of statistics, investigation of incidents and trends
- Testing and exercising – full system tests with well-defined objectives and embedded learning
- Importance of long-term relationships with suppliers to help implement achievable improvements and best practice, near miss reporting and follow-up
- Safety culture – whether inherent or grown. Particularly in key roles such as Supervisors who may need a toolkit of leadership skills they have not developed in their technical career to date
- Contractors – signing up to ‘codes of conduct’ when working on or delivering to a site
- Load securing – taking photos of load securing, ensuring products are being passed to third parties in a secure way
- Working with procurement to define standards from the beginning of a contract

Areas of concern:

- Small organisations with minimal investment in unloading and safety infrastructure and/or reliance on key individuals to uphold standards which becomes a major risk when they leave or retire
- Increased scrutiny on chemical security and the ability to ‘track and trace’ products and ensuring the reputability of suppliers and that suppliers will uphold the same standards
- The hazard of mixed loads onsite when hauliers, third parties collect or drop chemicals onto site – the risk of the unknown chemicals being transported in that load

Next steps

- Are you globally compliant with ER regulations for supply and transport?
- Have you considered your options for Poison Centre response and covering non-medical incidents?
- How do your existing systems, procedures compare to best practice?
- Where can you improve your compliance or response?

NCEC Resources

Welcome to the NCEC resources page. Here you will find useful information aimed at professionals working / involved with chemicals or hazardous substances. If there is a particular resource or information that you would find useful, but is not listed below, then please feel free to email NCEC@ricardo.com



Safety data sheet writing white paper
This document has been created to help you complete each of the 16 sections required in an SDS and highlights the requirements that are frequently missed.



Poison centre information pack
An overview of information related to EU Poison Centres including; contact requirement details, telephone numbers and fee requirements.



Poison Centre Compliance report
NCEC has put together the following report to support our clients in understanding their regulatory obligations regarding European Poison Centres.



Our history

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1973

Incident involving fuming sulphuric acid led to NCEC being established



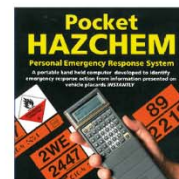
1980

NCEC starts emergency response support to private sector clients



1997

Safety data sheet (SDS) consultancy launched



2005

Launch of Pocket Chemdata device



2008

Launch of annual Hazmat Conference



2014

Launch of crisis management services

1974

Launch of Chemsafe



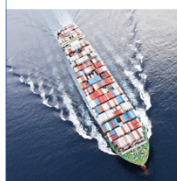
1983

Launch of Chemdata



2000

Launch of Carechem 24 international service



2006

Level 2/3 database compiled for use in emergency response



2013

Upgraded emergency telephony system



2015

Launch of Global Chemical Congress





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