

UPLIFTING EXPERIENCE®
À LA HAUTEUR DE LA LÉGENDE

Turbomeca Safety Initiatives



July 2009

World leader in its market

Number one in 2008



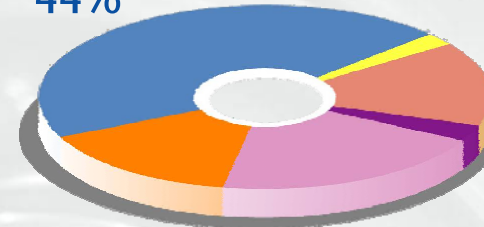
An international company on a global scale



World leader for helicopter turbines

All sectors

Turbomeca
44%



Others 1%

General Electric 11%

Honeywell 2%

Rolls-Royce 14%

Pratt & Whitney 28%

Figures 2004-2008 excl. CIS, incl. US military (Turbomeca estimation, number of engines)



SAFRAN

Group business

Aerospace Propulsion

- Snecma
- Turbomeca
- Microturbo
- Snecma Propulsion Solide
- Techspace Aero



Aircraft Equipment

- Aircelle
- Hispano-Suiza
- Labinal
- Messier-Bugatti
- Messier-Dowty
- Teuchos



- Sagem
- Sagem Sécurité



Defense Security

SAFRAN

Propulsion Branch



(1) Rolls-Royce Turbomeca Ltd is a 50/50 joint company of Turbomeca and Rolls-Royce (UK)
 (2) PowerJet is a 50/50 joint company of Snecma and NPO Saturn (Russia)
 (3) EuroProp International is a european joint company (Snecma 28%, Rolls-Royce 28%, MTU 28%, ITP 16%)

(1) CFM International is a 50/50 joint company of Snecma and General Electric (USA)
 (2) Cooperation with Engine Alliance (Snecma 10%, Techspace Aero 7,5%)
 (3) Cooperation with General Electric (Snecma 23,5% for -94B and 23,7% for -115B)
 (4) Europropulsion is a 50/50 joint company of SAFRAN and Avio (Italy)

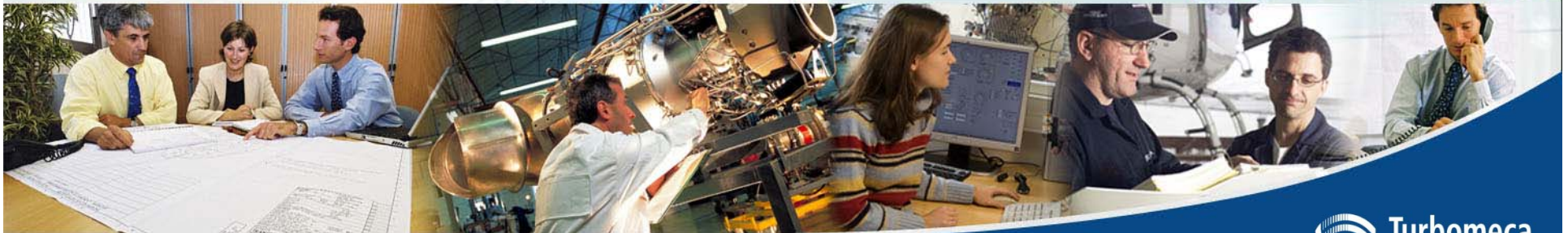
World leader in its market

Key figures



A line graph with a light blue background and a grid. The x-axis shows dates from 06-06 to 09-17. The y-axis shows values from 0 to 60. There are three lines: a dark blue line, a medium blue line, and a light blue line. All lines show an overall upward trend with some fluctuations.

6,336	world staff	(12/31/2008)
2,350	customers in 155 countries	
1,030 M€	global sales	(12/31/2008)
44%	global market share	(2008)
1,313	engines produced	(12/31/2008)
1,844	engines repaired	(12/31/2008)
15,200	turbines in operations	

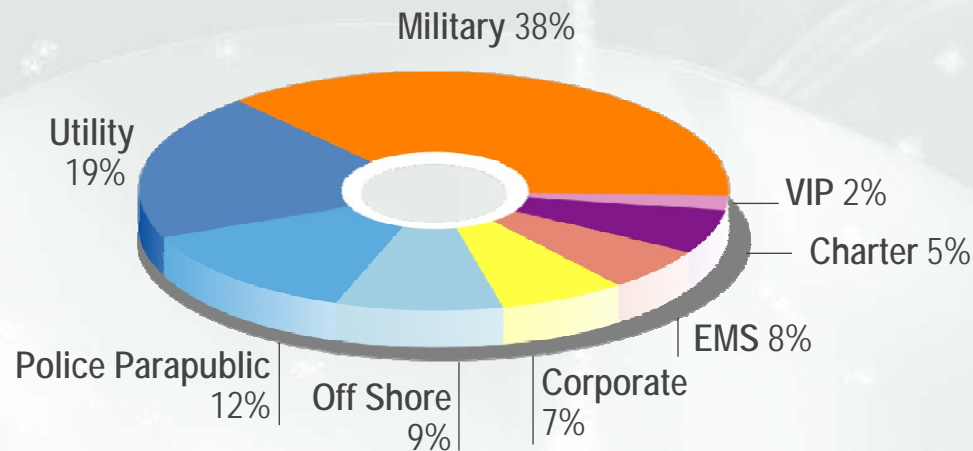


Turbomeca's customers

A wide variety


Operators

- **Missions**



Distribution of Turbomeca engines by mission type

- **Variable fleets**

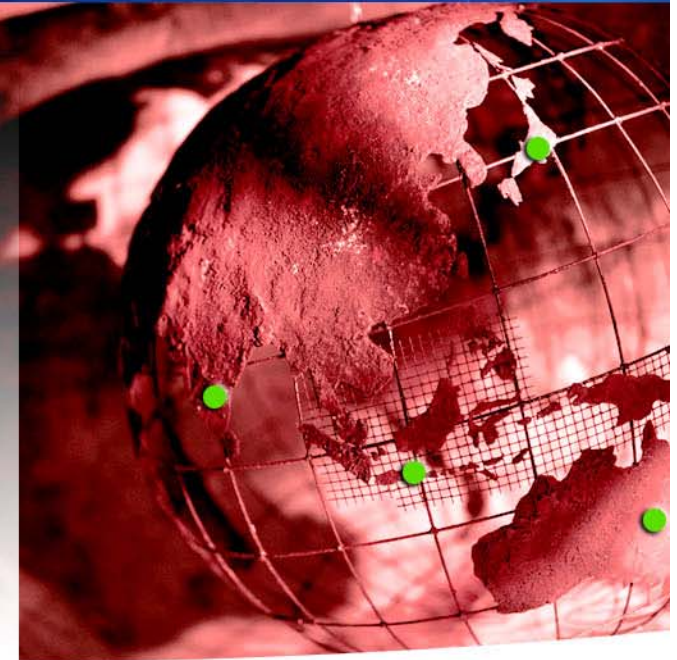
- 1 to 350 helicopters
- 85% of our operators have less than 5 helicopters


Main helicopter manufacturers



Turbomeca

a truly global company



Sites and subsidiaries (employees, 31/12/2008)

Turbomeca Canada (119)	■ ●	Turbomeca Germany (29)	■ ●	Turbomeca Japan (8)	■
Turbomeca USA (381)	■ ▲ ●	Turbomeca UK (181)	■ ●	Turbomeca Asia Pacific (32)	■
Turbomeca do Brasil (271)	■ ●	Turbomeca Africa (261)	■ ▲ ●	Turbomeca Australasia (121)	■ ▲ ●
Turbomeca America Latina (12)	■	Microturbo (451)		Turbomeca Beijing Helicopter Engines	■
Turbomeca Manufacturing (93)	●	Turbomeca in France (4,817)		Beijing Turbomeca Changkong	

- Commercial Activity
- ▲ Assembly & tests
- Maintenance, Repair & Overhaul
- Parts Manufacturing

Safety is our priority

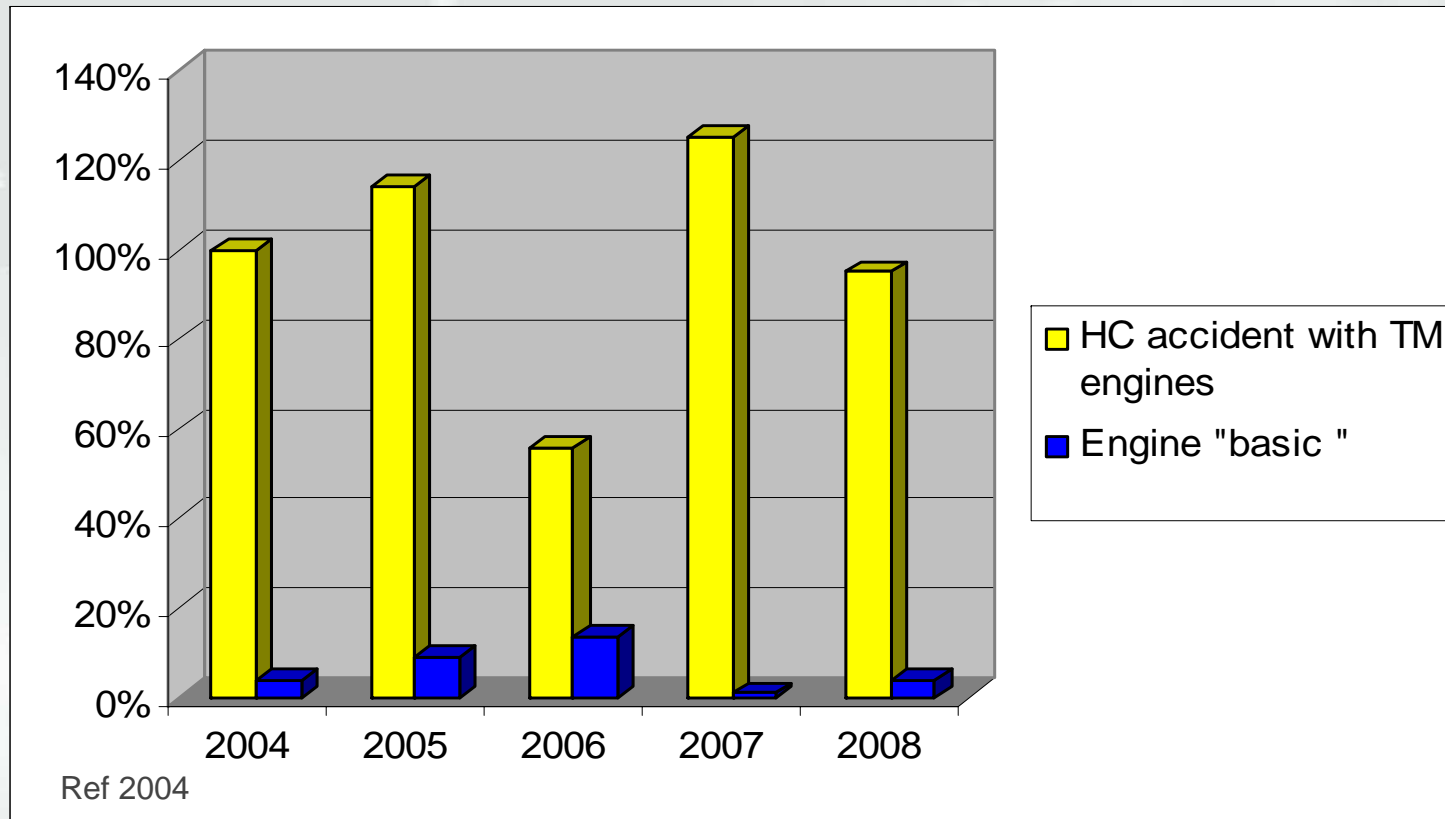
Turbomeca initiatives



Safety is our priority

Turbomeca initiatives

HC Accident status with Turbomeca engines

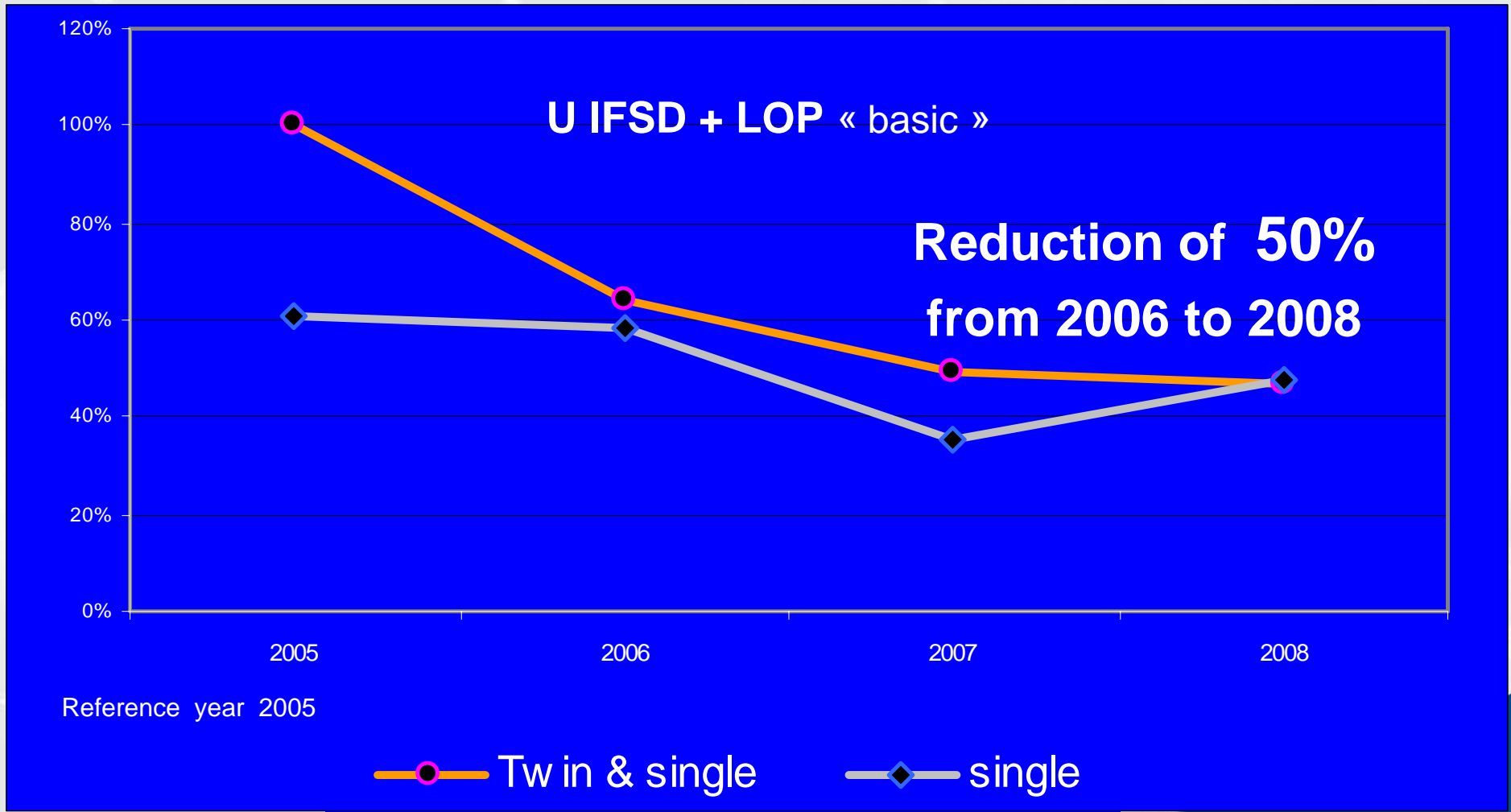


5% of HC accidents are related to an engine cause.

Safety is our priority

Turbomeca initiatives

Accident /incident status



Safety is our priority

Turbomeca initiatives

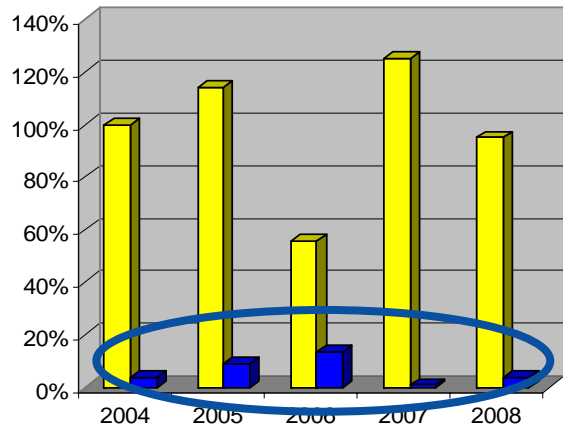
- ▶ **Strong commitment of Turbomeca CEO on safety**
- ▶ **Safety Management System implementation since beginning 2009**
 - **Design, manufacturing and MRO**
 - **Worldwide scale, with specific adaptation to local regulations (USA, Canada, Australia, Singapore, Brazil..)**
- ▶ **Develop safety culture within the company**
- ▶ **Reduce Human Factor Risk (manufacturing, MRO)**

Safety is our priority

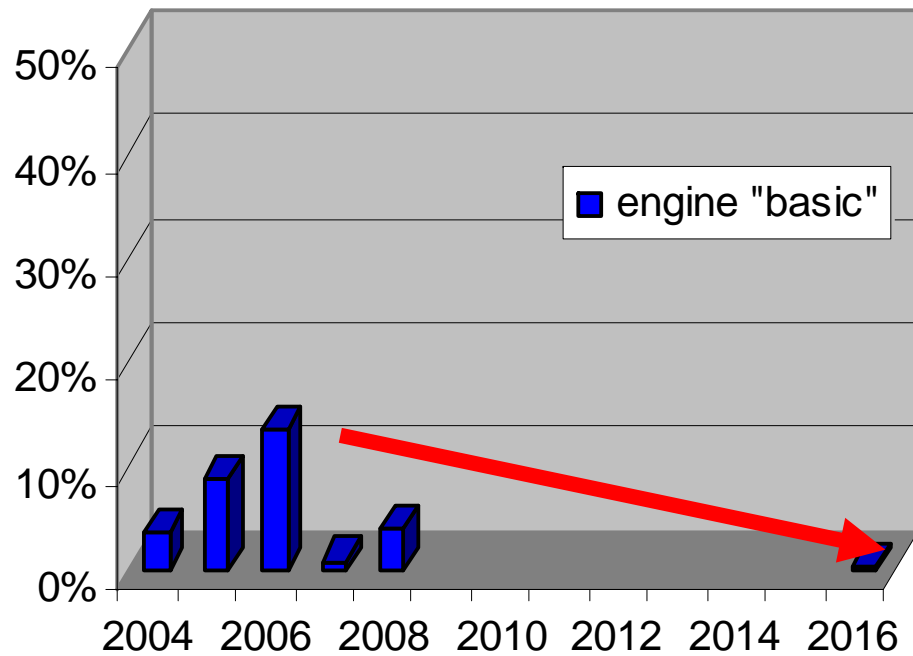
Turbomeca initiatives

Turbomeca goal:

Cut helicopter accident related to engine root cause rates 80 percent by 2016



Reference year 2004

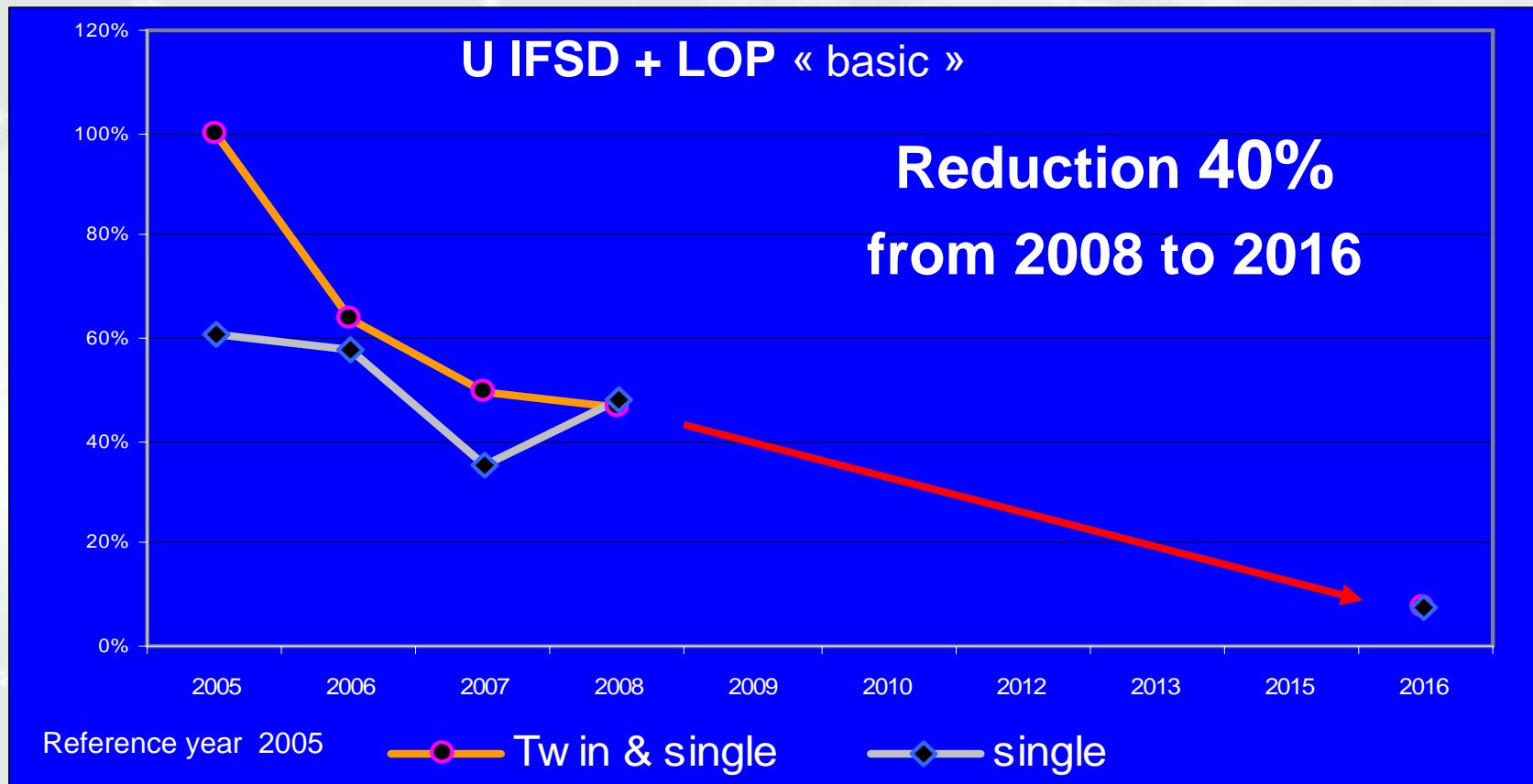


Safety is our priority

Turbomeca initiatives

Turbomeca goal:

Reduce UIFSD and LOP of 40% by 2016



Safety is our priority

Turbomeca initiatives

How to contribute to HC accident reduction :

- ▶ **Detect weaknesses in engine operation and maintenance and propose improvements:**
 - Better control of configuration
 - Maintenance process
 - Employees qualification


- **Develop an integrated information system to collect datas from HC in operation and in MRO**

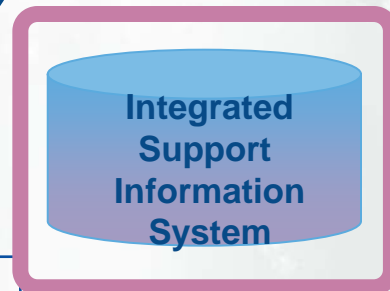
- **Develop a Learning Management system**

Safety is our priority

Turbomeca initiatives

How to contribute to reduce HC accident:

 Detect weaknesses in engine operation and maintenance
Limit exceedance
Abnormal maintenance operation
unsuccessful trouble shooting...



Propose **improvement actions**
configuration control
Maintenance process



Implement **specific training**

Safety is our priority

Turbomeca initiatives

- **Strong implication** to safety management and to the **IHST**
- **Dedicated organization** to develop and improve our **Safety Management System**
- **Implement tools to detect behaviors that can lead to a critical situation**
- **Assist all operators in Safety improvement**

We are determined to meet the Helicopter Industry objective:

Cut helicopter accident rates 80 percent by 2016