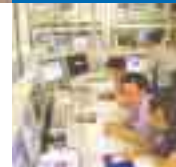




# ANNUAL REPORT 2002



# Contents

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## Annual Report

Year ended December 31, 2002

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# Message from the Chairman

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The past 18 months have seen a whole series of events of far-reaching consequences – the shock waves from September 11, resurfacing tensions in the Middle East, the burst speculation bubble linked to the “new economy”, a serious and lasting stock market crash, a slowing economy, the Enron and Andersen affairs and the wave of distrust they generated towards the market economy's mechanisms and participants.

In this period of recoil and doubt, it is necessary more than ever before to focus on the fundamental values of integrity, rigor, and perseverance. Far from swinging with the winds of fashion, they are the underpinnings of any lasting enterprise.

It is on these values that Technip-Coflexip has based its strategy – a long-term strategy.

- With the succession of acquisitions of the Mannesmann engineering affiliates in 1999, Aker Deepwater in 2000, and Coflexip in 2001, we have built an engineering and services company capable of fulfilling turnkey projects with equal success both in upstream and downstream oil and gas and in various industrial sectors selected for their growth potential.
- We have also opted for a particular organizational model that is characterized by a worldwide network of engineering and services centers; they enable us to be as close as possible to our markets and customers and to support our global clients across the world. From its French roots, Technip-Coflexip today has over 80% of its workforce outside France.
- Over the past 18 months, we have identified the strengths of the new Group, as well as areas for improvement, and detailed a growth plan for the coming three years. The plan includes the disposal of poorly performing or non-strategic assets, a simplification of our legal and operational structures, and actions to enhance synergies and productivity. It will be executed starting in 2003.
- In this unfavorable period for our industry, we have also imposed a stringent selectivity on order intake. This enables us to avoid assuming projects, notably deepwater projects, that we do not think offer sufficiently high margins in view of the risks involved. This selectivity has not stunted our progression – 2002 orders increased substantially compared to previous years.

At the end of this difficult year 2002, what are our Group's situation and outlook?



- As a consequence of the fall of the dollar and the shrinking of the 2000 – 2001 offshore backlog, our 2002 revenues and profit declined compared to the previous year. That having been said, we have fared considerably better than most of our competitors, many of whom are announcing heavy losses.
- We have generated a markedly improved free cashflow compared to the previous year. This has allowed us to reduce our net debt by more than 40% in the year 2002 alone, while still maintaining a high dividend.

- Our backlog is at a record high and represents the equivalent of nearly 16 months' revenues. This will assure us a healthy business level for 2003.

Competitive pressures in our businesses continue to be tough. However, several of the more aggressive competitors have publicly announced that they will adopt a more conservative approach, notably in turnkey projects for deepwater oil developments.

At the beginning of this year, Technip-Coflexip can boast a very rich order book, significant potential for new business, a strengthened financial underpinning, and operating entities ready to strike out.

Even though the international climate is marked by a number of uncertainties, it seems clear to me that our Group is today well equipped to embark on a new business and financial growth cycle that will show up in the bottom line starting in 2004 / 2005.

The loyalty of our shareholders has been sorely tried since May 2002 by the flight from the stock market that has not left our share price unscathed. We should bear in mind that performance is not measured over a few quarters but over the long haul.

Thanks to the professionalism and motivation of our teams, I am convinced that the Technip-Coflexip Group will fully meet your expectations in the months and years to come.

I thank you for your confidence.

A handwritten signature in dark ink, appearing to read 'D. Valot', written in a cursive style.

**Daniel VALOT**  
Chairman and CEO

# Board of Directors

May 21, 2003

Daniel VALOT

Chairman and Chief Executive Officer

Olivier APPERT

Roger CAIRNS

Miguel CAPARROS

Jacques DEYIRMENDJIAN

Jean Pierre LAMOURE

Daniel LEBEGUE

Roger MILGRIM

Rolf Erik ROLFSEN

Pierre VAILLAUD

Bruno WEYMULLER

## Audit Committee

Daniel LEBEGUE

Chairman

Miguel CAPARROS

Roger MILGRIM

Pierre VAILLAUD

## Strategic Committee

Jacques DEYIRMENDJIAN

Chairman

Olivier APPERT

Roger CAIRNS

Pierre VAILLAUD

## Nominations & Remunerations

Bruno WEYMULLER

Chairman

Jean Pierre LAMOURE

Rolf Erik ROLFSEN

## Auditors

Titular Auditors:

Cabinet Barbier Frinault & Autres - Réseau Ernst & Young  
represented by René PROGLIO

Claude CHARRON

Alternate Auditors:

Cabinet Barbier Frinault & Autres - Réseau Ernst & Young  
represented by Gilles PUISSOCHET

Laurent LEVESQUE

# Executive Management

**Daniel VALOT** - Chairman and Chief Executive Officer

**Daniel BURLIN** - CEO, Onshore-Downstream Branch

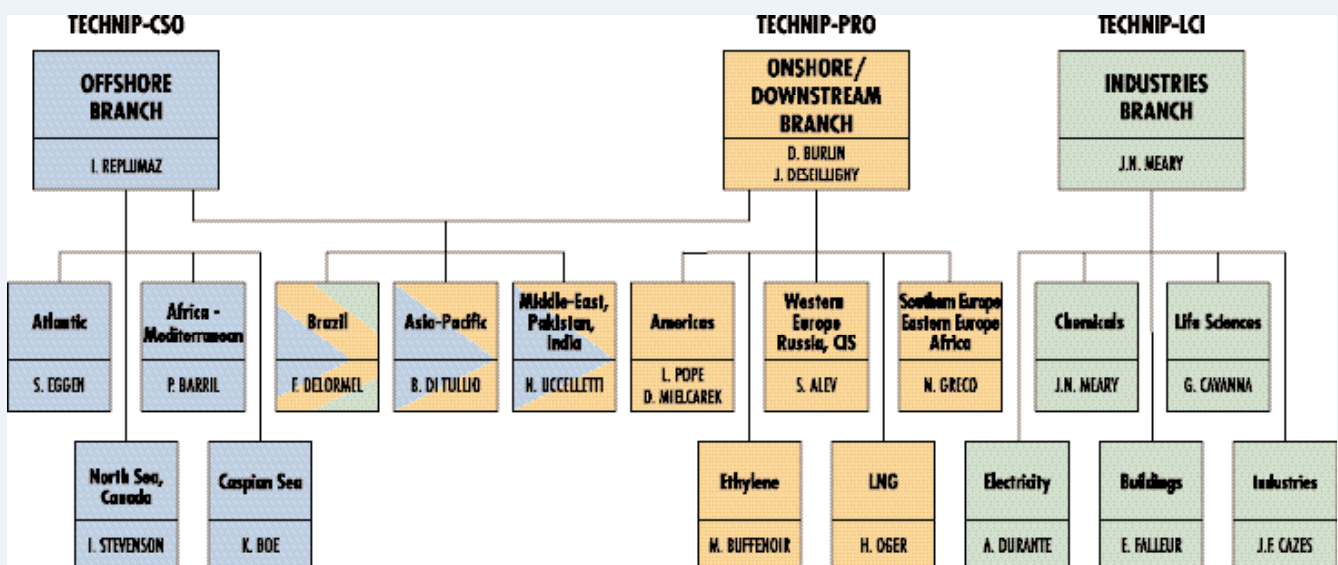
**Anne DECRESSAC** - Senior Executive Vice-President, Human Resources and Communication

**Jean DESEILLIGNY** - Senior Executive Vice-President, Business and Operations, Onshore-Downstream Branch

**Olivier DUBOIS** - Chief Financial Officer

**Ivan REPLUMAZ** - CEO, Offshore Branch

# Operational Organization



# Profile

www.technip-coflexip.com



## Our business: engineering, technologies and construction services

Resulting from the merger of two champions in their respective businesses, Technip-Coflexip is one of the most integrated groups providing engineering, technologies and construction services to the oil/gas and petrochemical industry worldwide. With over 40 years of experience in the design and construction of large industrial facilities, a wide range of state-of-the-art technologies and operational bases spread over the 5 continents, the Group is able to manage all aspects of major projects, from front end engineering design to turnkey delivery.

## For oil and gas, petrochemical and other industries

Technip-Coflexip's activity covers offshore and onshore field development, gas processing and liquefaction, refining, onshore pipelines and petrochemicals – which represent its core business. It is particularly well positioned in the offshore/deepwater area, backed by its own high-quality industrial assets dedicated to this business. It is also actively developing its activities in non-oil sectors such as fertilizers, chemicals, life sciences, power generation and other industries.

## A world-class player

With a workforce of 19,000 people worldwide, and annual revenues of about 4.5 billion euros, Technip-Coflexip ranks among the 4.5 world top full-service engineering and construction groups in the field of hydrocarbons and petrochemicals.

## TECHNIP-COFLEXIP

Date of creation: 1958

Technip-Coflexip is listed in New York (NYSE:TKP) and in Paris (EURONEXT: 13170).

### Shareholders at February 28, 2003

- Gaz de France 7,2%
- IFP 6,8%
- TotalFinaElf 3,8%
- Staff 2,6%
- Technip-Coflexip 0,2%
- Public 79,4%

- In-house workforce: 19,000 worldwide.
- Annual revenues: about 4.5 billion euros.
- Main engineering centers: France, Italy, Germany, United Kingdom, Finland, Norway, Netherlands, U.S.A., Brazil, Abu Dhabi, China, India, Malaysia and Australia.
- Manufacturing plants (flexible and rigid pipelines, umbilicals, R.O.V.s), construction yards and spoolbases: France, Brazil, United Kingdom, U.S.A., Norway, Finland and Azerbaijan.
- A fleet of 15 subsea construction and installation vessels.

## Fields of activity

### Offshore

- Field development in deep and shallow waters
- Manufacturing and supply of deepwater products (flexible and rigid pipelines, umbilicals, R.O.V.s, riser systems)
- Subsea pipelaying and construction
- Floaters, fixed platforms and topsides fabrication

### Onshore et Downstream

- Gas treatment and liquefaction, GTL
- Oil refining (refining, hydrogen and sulfur units)
- Onshore pipelines
- Petrochemicals (ethylene, aromatics, olefins, polymers)

### Industries and other

- Fertilizers
- Chemicals, pyrotechnics
- Life sciences
- Metals
- Power generation
- Cement
- Manufacturing industries
- Buildings



## Full-range services from basic engineering to global solutions

Technip-Coflexip provides all or part of the services for basic and detail engineering, procurement, construction and project management, at optimized costs.

The Group has a long track record in implementing large turnkey contracts and arranging related international financing on behalf of its clients.

In particular, in the offshore segment, Technip-Coflexip is in a position to fulfill the expectations of the operators wanting to entrust the largest possible range of services to a single contractor able to manage all aspects of a major field development.

The Group frequently works with partners of various nationalities and has developed an international shopping-around policy, notably through a private e-procurement site ([www.epc-business.com](http://www.epc-business.com)) which allows it to obtain the most competitive prices.

## Strong technological expertise

Thanks to its highly-skilled process engineers and technicians, Technip-Coflexip has developed strong technological expertise, conceiving and implementing its own products, technologies and related proprietary equipment in the subsea and offshore areas (subsea pipelines, umbilicals, robotics, platforms), as well as in refining, gas, hydrogen, sulfur, ethylene, fertilizers and cement.

In addition, the Group has established close ties or exclusive alliances with major international licensors, notably in the field of petrochemicals.

## Quality, health, safety and the environment

Quality, the health of the personnel working on the job sites or in the industrial facilities built by Technip-Coflexip, as well as environmental protection are Technip-Coflexip's top priorities. These concerns are taken into account at the earliest stage when the facility is being designed and appropriate measures are applied strictly at each stage of project execution.

## Business ethics

Technip-Coflexip's professional activities are ruled by a code of business ethics, which defines the principles regarding its teams' working relationship with all parties involved. The main guidelines of this code are a service-to-client oriented policy, backed by quality and professional excellence, the highest standards of honesty, integrity and fairness.



### Business segment breakdown Revenues December 31, 2002

- Offshore 48%
- Onshore and Downstream 43%
- Industries 9%

### Geographical breakdown Revenues December 31, 2002

- Europe, Russia, Central Asia 27%
- Africa, Middle East 33%
- Asia Pacific 10%
- Americas 30%





# Highlights

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## ■ Record backlog

At December 31, 2002 the backlog of Technip-Coflexip stood at € 5,776 million, a rise of 17 % compared to end 2001. This backlog, which corresponds to the uncompleted part of contracts in force, is satisfactory both in volume and quality. It represents close to 16 months of revenues and offers the Group the prospect of profitable growth.

## ■ Success of Spars in the Gulf of Mexico confirmed

Technip-Coflexip is very active in the construction of "Spar" floating platforms, of which it owns the technology. The Group delivered one Spar platform and started construction of four others for the deep waters of the Gulf of Mexico. The latest platform in the range of Spars is for the Red Hawk field operated by Kerr-McGee and represents the first application of a new concept, the "Cell Spar", which has been developed by Technip-Coflexip for mid-sized fields.

## ■ Penetration of the West African offshore market

In West Africa, Technip-Coflexip has underpinned its position in the offshore market by winning some € 330 million worth of contracts for the installation of deepwater subsea flowlines as well as by launching the construction of an umbilicals fabrication plant in Angola in partnership with Sonangol. Technip-Coflexip has also assumed an important part of the project to design and build the Amenam fixed platform in Nigeria.

## ■ Completion of a major turnkey offshore project in South East Asia

In the area of fixed platforms in shallow waters, Technip-Coflexip, leading an international consortium, completed a US \$ 600 million turnkey project for Carigali Triton Operating Company (CTOC) for the development of its Cakerawala gas field in Malaysia/Thailand. This success demonstrated the Group's ability to manage a major EPCI project on schedule, within budget, and to the satisfaction of the customer.

## ■ Disposal of non-strategic assets

Technip-Coflexip has disposed of non-strategic assets: its 46 % shareholding in Ipedex, the Well Operations Division, and the McNulty construction yard at Newcastle. In 2002 and early 2003, the Group also disposed of € 137 million worth of real estate assets in the Paris region, the aim being to gather its Paris teams in a single site in La Défense so as to promote synergies and reduce operating expenses.

## ■ Strong recovery of Onshore and Downstream activity

Order intake for the Onshore and Downstream Branch recovered significantly and contributed substantially to the growth of the Group's backlog. Technip-Coflexip won or brought into force several major projects in the Middle East (refining units at Abu Dhabi, gas treatment units in Saudi Arabia, a fertilizer complex in Oman, and a steam cracker in Iran), and in Africa, with trains 4 and 5 of the LNG complex in Nigeria.

## ■ Ahead of the pack in the emerging GTL market

Natural gas represents a major growth area for the Group, given the investment prospects it represents for the coming decade. Technip-Coflexip is already widely acknowledged for its expertise in treatment/fractionation and in onshore pipelines and plays a major role in the area of liquefied natural gas (LNG). It is now a pioneer in the emerging GTL (Gas-To-Liquids) market, with the early 2003 award of the world's first large-scale GTL plant in Qatar.



## ■ Increasing activity in petrochemicals/chemicals in China

Within the framework of major investment projects for the construction of petrochemical complexes in China, Technip-Coflexip has won roughly €400 million worth of contracts, most notably from joint ventures between Chinese companies and foreign partners such as Shell, BP, Bayer and BASF.

## ■ A new contract for a very large-scale steam cracker

Technip-Coflexip has taken up the leadership position in the segment for very large-scale ethylene production complexes following the coming into force of the contract for the design and construction of the world's largest steam cracker (1.4 million tons of ethylene per year) for the 10<sup>th</sup> complex at Asaluyeh in Iran. The steam cracker uses Technip-Coflexip in-house technologies and furnaces designed by the Group. Technip-Coflexip had already been contracted to design and build the steam cracker for the one million tons per year 9<sup>th</sup> complex.

## ■ Significant breakthrough in the non-ferrous metals industry

Following the award by INCO of a major contract for its nickel-cobalt production complex in New Caledonia, Technip-Coflexip, within a 50/50 joint venture, was awarded early 2003 a US \$600 million contract by Pechiney for the design and construction of an aluminum plant in South Africa. ■



# Technip-Coflexip

## Financial Results



### The Group's financial results

The year 2002 is an important one, since it is the first complete financial year for the new Technip-Coflexip Group resulting from the successful completion of Technip's friendly takeover of Coflexip in October 2001.

This financial year is characterized by the following events:

- A strong increase in backlog after a slowdown in the 2000 and 2001 order intake in the Onshore/Downstream Branch (ex Technip).

- A strengthened financial structure resulting from significant and rapid decrease of the net debt, excluding redemption premium, from 876 million euros at January 1<sup>st</sup>, 2002 to 506 million euros at December 31<sup>st</sup>, 2002. This is due to a high level of cash from operating activities during the year 2002.

- A continued prudent management of exposure to currency, as well as a cautious estimation of contingencies due to technical problems, litigations, and foreseeable losses on contracts.

- The diluted net income per share has been determined in accordance with the decrease of the outstanding shares common stock due to the cancellation of treasury shares.

- At the end of January 2002, Technip-Coflexip issued a debenture loan with a conversion option into new shares or exchange into existing shares. This debenture loan has been used to reimburse part of the credit facility on Coflexip acquisition debt, to increase the financial debt maturity of the Group and to extend the Group's debt maturity profile.

Net consolidated income before exceptional items and goodwill amortization charges amounts to 95.3 million euros. This result cannot be compared to the 2001 earnings, mostly because of the significant change in the scope of consolidation that occurred in October 2001 with the successful completion of Technip's friendly takeover of Coflexip. Prior to this takeover, the earnings of Coflexip were accounted for by Technip under the equity method. Starting from the 4th quarter 2001, Coflexip is fully consolidated in the accounts of Technip-Coflexip. Furthermore, the financial result includes the financial costs on Coflexip acquisition debt, which was partly refinanced by the issuance of convertible bonds in January 2002.

The merger between ISIS and Technip-Coflexip occurred in June 2002 and had no significant impact on the Group's consolidated accounts.

During the year 2002, Coflexip recorded significant capital gains on asset disposals, which were deducted from the amount of goodwill and thus had no impact on the Group's consolidated statement of income.





## Consolidated results

Amounts in millions of euros except per share data	Technip-Coflexip 2002	Technip-Coflexip 2001
Revenues	4,452.3	3,546.0
% change	25.6%	
Cost of Sales	(3,792.2)	(3,035.3)
SG & A	(312.5)	(226.3)
<b>EBITDA</b>	<b>347.6</b>	<b>284.4</b>
% change	22.2%	
Depreciation of Assets	(143.0)	(49.6)
<b>EBITA</b>	<b>204.6</b>	<b>234.8</b>
% change	-12.9%	
Goodwill amortization	(117.8)	(61.3)
<b>EBIT</b>	<b>86.8</b>	<b>173.5</b>
% change	- 50%	
Net Financial Result	(66.9)	(6.5)
<b>Current Income before income tax</b>	<b>19.9</b>	<b>167.0</b>
% change	- 88.1%	
Exceptional Items	(6.9)	(6.6)
Equity Income of Investees	-	15.6
Minority Interest	3.9	(2.4)
Income tax	(46.3)	(65.5)
<b>Net Income</b>	<b>(29.4)</b>	<b>108.1</b>
Net Income of integrated companies <sup>(1)</sup>	84.5	156.2
Net Income of the consolidated Group	(33.3)	110.5

Exceptional Items	6.9	6.6
Goodwill amortization	117.8	61.3
<b>Net Income (before exceptional items and goodwill amortization charges)</b>	<b>95.3</b>	<b>176.0</b>
% change	- 45.9%	19.7%
Number of shares on a fully diluted basis at 31 December <sup>(2)</sup>	28,385,816	25,387,550
Outstanding shares weighted number	26,794,373	24,242,000
Diluted Net Income Per Share <sup>(2)</sup>	(0.49)	4.26
Net Income Per Share	(1.10)	4.45
Net Income Per ADS <sup>(3)</sup>	(0.12)	1.07
Net Income per share (before exceptional items and goodwill amortization charges)	3.91	6.93
Net Income per ADS <sup>(3)</sup> (before exceptional items and goodwill amortization charges)	0.93	1.73

<sup>(1)</sup> Excluding goodwill amortization.

<sup>(2)</sup> Net income does not include after tax convertible bond financial costs and redemption premium.

<sup>(3)</sup> One ADS is equal to one fourth of one ordinary share.



## BACKLOG (Uncompleted portion of contracts in force)

- On December 31, 2002, the total backlog for Technip-Coflexip stood at 5,776 million euros of which 1,761 million euros were originated by the Offshore Branch. At the end of 2001, the backlog of the Group stood at 4,926 million euros, of which 2,138 million euros were generated by the Offshore Branch. This slight decrease in the Offshore Branch is mainly due to a slowdown in the order intake of the floaters business (277.5 million euros of order intake with a turnover of 604 million euros). On the contrary, the Onshore/Downstream Branch order book was up 58.9% compared to 2001 due to the contracts signed in 2001 and 2002 but not entering the backlog until in 2002.

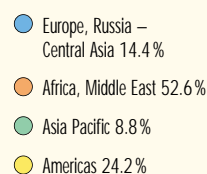
The Group's backlog on December 31 2002, does not include several large projects for which contracts have been already signed but which, pending customary financing arrangements, have not yet entered into force, for a total value of 0.4 billion euros (1.2 billion euros at mid-February 2002). The coming into force of these contracts is expected during 2003. This "pre-backlog" is slightly lower than in the previous year (1.5 billion euros) compared to 0.7 billion euros in 2000.



### Backlog by sector of activity At December 31, 2002



### Backlog by region At December 31, 2002



## Revenues

Revenues amounted to 4,452 million euros, up 25.6% compared to 2001. This sharp increase comes from the significant change in the scope of consolidation as Coflexip is fully consolidated in the accounts of Technip-Coflexip Group in 2002. Revenues are down 10.1% compared to proforma 2001 revenues mainly due to the impact of the weakness of the US dollar (down 7% in 2001) and other currencies against the euro (estimated to be 129.7 million euros).

The Onshore/Downstream branch revenues amounted to 1,938.6 million euros in 2002 versus 2,352 million euros in 2001, down 17.6%. The year on year decline in full year total revenues for the Onshore/Downstream branch is due to the impact of the low order intake during 2000 and 2001 and was exacerbated by implementation delays, which have affected several major new contracts.

The Offshore branch full year revenues were unchanged at 2,125 million euros in 2002 compared to 2,126 million euros in 2001 (on a pro-forma basis). Upon a similar basis (with the same scope of consolidation and the same currency exchange), the revenues would have been up 1.5%. However, even though manufacturing and installation of SURF (Subsea Umbilicals, Risers and Flowlines) facilities kept on increasing especially in West Africa: the Floaters activity dropped significantly down 8.6%, due to a lack of attractive opportunities especially in the Aker Maritime Division (hereafter deepwater Division), with revenues down from 661 million euros in 2001 to 604 million euros in 2002.

## Operating income / EBITDA

Consolidated earnings before interest, tax, depreciation and amortization (EBITDA) amounted to 347.6 million euros, (down 22.7% compared to 2001 proforma) representing a 7.8% margin of the sales turnover. Without the impact of the unfavourable evolution of the exchange rates, the EBITDA margin would have risen 8% against 9.1% on a proforma basis 2001.

EBITDA generated by the Onshore/Downstream branch decreased from 189.3 million euros (8% of the branch revenues) in 2001 to 85.3 million euros (4.4% of the branch revenues) in 2002. This decrease is mainly attributable both to the fall in this activity and to the early stage of progress on the new contracts recorded in 2002 during which time little margin is recognized by the Group.

EBITDA generated by the Offshore branch in 2002 amounted to 250.2 million euros (11.8% of the branch revenues) compared to 251.1 million euros (also 11.8% of revenues) on a proforma basis 2001. This stability masks a significant drop in profitability due to non recurring exceptional charges included in the 2001 figures.



In fact two non-recurring items had a negative effect on the 2001 Coflexip earnings:

- a charge of 10.2 million euros (before taxes) related to the public offer launched by Technip in July 2001.
- a loss of 27.3 million euros related to a contract for the repair of a drilling rig carried out by the Finnish subsidiary company of AKER Division Deep Water.

Without these two non-recurring items, the 2001 EBITDA of the Offshore branch would have amounted to about 288 million euros (13.6% of revenues). The decrease of the EBITDA is, in fact, about 13% from one year to another.

The profitability of the Industry Branch has improved: the EBITDA of 12.2 million amounts to 3.1% of the sales turnover of the branch compared to 9.1 million i.e. 1.9% of the sales turnover of the branch in 2001 in spite of the difficulties on two contracts.

The smaller size of the branch makes it indeed more sensitive to any evolution of one of its significant contracts.

### Revenues by sector of activity At December 31, 2002

- Offshore 47.7%
- Onshore/Downstream 43.5%
- Industries 8.8%

### Revenues by region At December 31, 2002

- Europe, Russia  
Central Asia 26.9%
- Africa, Middle East 33.3%
- Asia Pacific 10%
- Americas 29.8%

## EBITDA

	At December 31, 2002	%	% of revenue per branch
<b>EBITDA by sector of activity</b>			
Offshore	250.1	72.0 %	11.8 %
Onshore/Downstream	85.3	24.5 %	4.4 %
Industries	12.2	3.5 %	3.1 %
<b>Total Technip-Coflexip</b>	<b>347.6</b>	<b>100.0 %</b>	<b>7.8 %</b>
<b>EBITDA by region</b>			
Europe, Russia - Central Asia	148.4	42.7 %	12.4 %
Africa, Middle East	102.9	29.6 %	6.9 %
Asia Pacific	22.1	6.4 %	5.0 %
Americas	74.2	21.3 %	5.6 %
<b>Total Technip-Coflexip</b>	<b>347.6</b>	<b>100.0 %</b>	<b>7.8 %</b>

## Depreciation, capital expenditures, cash flow and cash position

- Depreciation charges amounted to 143 million euros i.e. 3.2% of revenues for 2002.

The capital expenditure related to tangible and intangible fixed assets rose to 126 million euros (compared to an initial budget of 140 million euros). This amount shows the stability of the operational capacities of the Group particularly in the Offshore branch.

The cash position in 2002 of Technip-Coflexip rose to 239.9 million euros (excluding the impact of the transfer of assets), more than covered the cost of the new investments.



## Goodwill amortization

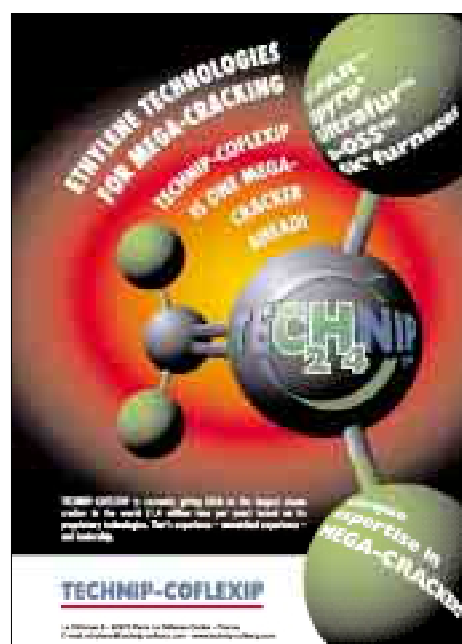
In 2002, goodwill amortization charges amounted to 117.8 million euros. An impairment test confirmed their book value. The two most important items concern the SURF (1975 million euros) and Floaters (404 million euros) activities.

## Net financial result

In 2002, the financial result (net interest income plus foreign exchange gain/loss) amounted to a net charge of 66.9 million euros compared with a net income of 6.5 million euros in 2001.

According to the accounting policies of the Group, the financial gains on major turnkey contracts are recorded as sales turnover and do not appear under the net financial result. In 2002, these revenues represented 14 million euros compared to 17 million euros in 2001.

The financial charges of 2002 include 27.3 million euros of financial charges and amortization related to the convertible bonds OCEANES and 10.8 million euros of interest on the bills of treasury.



## Exceptional items

The Group recorded an exceptional loss of 6.9 million euros in 2002 compared with a loss of 6.6 million euros in 2001. In 2001, this loss was the result of the dilution of the participation of Technip in Coflexip for (2.7) million euros and of the costs of the restructuring plan related to EHR in Germany.

In 2002, the loss resulted from exceptional charges in the German subsidiaries (depreciation and loss on two contracts coming from the business acquired from Manesmann in 1999, as well as new expenses for the restructuring plan) and revenues from Italian tax credits to be received on the prior exercises and for which Technip-Coflexip has requested the restitution from the tax authorities.

## Taxes

The effective tax rate for 2002 rose to 33%, compared to 30% in 2001.

This increase results from the Group's decision not to recognize additional active deferred taxes arising from losses in the United States.

## Net income

Net income before exceptional items and goodwill amortization dropped by 45.8% compared to the previous year. The comparison is not relevant because of the changes in the perimeter (see above).

In 2002 the net income shows a loss of 29.4 million euros once exceptional items and goodwill amortization have been deducted.

## Dividends

The Management Board proposed a dividend of 3.30 euros per share, i.e. unchanged compared to last year. The ratio of cash distribution to net income before extraordinary items and goodwill amortization amounts to 24.5% compared to 48.9% in 2001 and 34.6% in 2000.

## Financial structure

Shareholders' equity of Technip-Coflexip amounts to 2.026 billion euros at December 31, 2002 compared to 2,214 billion euros the year before. Total debt is 1.3 billion euros at the end of 2002 (including the redemption premium for a value of 90 million euros), versus 1.6 billion euros at the end of 2001. The cash position of Technip-Coflexip stands at 741 million euros at the end of 2002, compared to 763 million euros at the end of 2001. Thus, the net debt has been reduced from 876 to 506 million excluding the convertible bonds redemption premium.

This fluctuation results from the appreciable improvement of the working capital needs (192.6 million on the financial year) and the proceeds from asset sales recorded on 2002.

At the end of 2002, the debt ratio of Technip-Coflexip (net debt / net debt + shareholders' equity) stands at approximately 22.7% (including redemption premium) and at 20% (excluding redemption premium) compared to 28.3% for 2001.

The cash position of the Group allowed it to repurchase some of its own shares. These shares were cancelled thus making it possible to reduce the dilution of the per share earnings in 2002.

The cash position of the Group shows the sound economic and financial health of Technip-Coflexip and made it possible today to propose to the shareholders a net dividend of 3.3 euros per share.



# Parent company results

## Income statement

At the year-end 2002, the net income of the company amounts to 105.8 million euros compared to 95.8 million euros at the year-end 2001. The main items are:

- a negative operating income of 10.6 million euros. This mainly represents Group management and administration expenses from which amounts re-invoiced to subsidiaries have been deducted.

- a positive financial income of 84.4 million euros. This mainly consists in dividends collected from subsidiaries for an amount of 158.8 million euros, from which have been deducted the following: the amortization of the Coflexip acquisition cost for 9.4 million euros, the financial expenses linked to this acquisition for an amount of 30.8 million euros, the amortization of the redemption premium for 16.9 million euros, the financial interest paid to the bondholders for 7.3 million euros and the depreciation of shares and marketable securities for 9.4 million euros.

- Positive exceptional items amounting to 9.5 million euros composed mainly of capital gains related to asset sales and amounting to 8.4 million euros.

## Balance sheet

At the end of January 2002, Technip-Coflexip issued bonds convertible into new shares and/or exchangeable against existing shares (OCEANE) for an amount of 793.5 million euros. To that is added a redemption premium for 93.4 million euros. This loan has been used to redeem a part of the credit facility which amounts to 944 million euros at the year-end 2002.

In January 2002, Technip-Coflexip merged with Isis. This merger led to a negative variation of the financial investments (393.8 million euros) related to the sale of Isis shares (749 million euros) and to the integration of the Coflexip shares, held by Isis in the past for 351.2 million euros.

The shareholders' equity decreased by 338 million euros because of the following operations:

- the cancellation of the Technip-Coflexip shares held by Isis in the past: 197.2 million euros including 191.5 million euros for issue premium.

- the cancellation of the Technip-Coflexip shares against CGG shares following the exchange with IFP: 73.2 million euros including 71.6 million euros for issue premium.

- the cancellation of its own shares: 106.3 million euros including 102.9 million euros for issue premium. ■





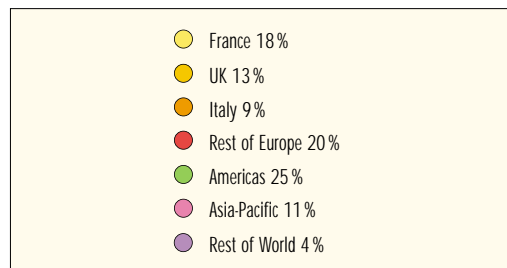
# Human Resources

## at the heart of the Group's development strategy

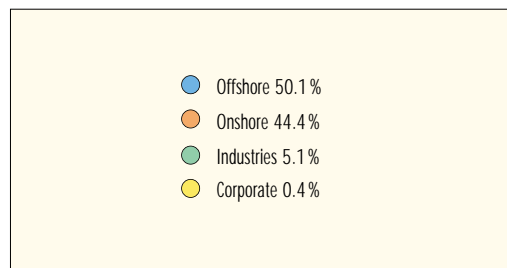
Technip-Coflexip today is made up of 19,000 people working in 52 countries across the globe.

60% of them are located in Europe (18% in France, 13% in the UK, 9% in Italy, and 20% in the rest of Europe), 25% are in the Americas (15% in the U.S.A.), 11% in Asia-Pacific, and 4% in the rest of the world.

The wealth and complementary of skills and experience of its experts, specialists, researchers, and technicians, combined with the commitment and motivation of all its teams play a crucial role in the Group's development.



Employee breakdown by region - (2002 average).



Employee breakdown by Branch - (2002 average).

Today, Technip-Coflexip is recruiting the profiles it needs without any real difficulty, except in some very specific cases. The "Careers" page of the Group's Web site attracts some 10,000 applications a year, on top of the several thousand received by mail.



The "Careers" section is the most visited part of the Group's Web site. It generates more than 800 job applications a month.



### Skills development

The Technip-Coflexip Group is committed to promote the development of each individual that belongs to it.

As soon as they join the Group and during the first four years of their professional life, the young engineers, managers, and technicians benefit from mentoring by an experienced manager who facilitates their integration and guides them in the development of their career path. This mentoring system is being gradually extended across the Group.

A College of Experts participates in identifying the Group's experts and evaluating the existing in-house competencies in the prime technological fields. It contributes to the specific management of the experts and ensures that all their roles are fulfilled: "technical reference", knowledge manager, trainer, and mentor.

A new high potential identification campaign is also conducted each year. High-potentials are considered as a key Group resource and benefit from a specific management program under the responsibility of the Group Executive Management team.

A new phase of the 360° evaluation has been organized for about 80 managers who joined the Group after the scheme was first implemented in 2000.

This method, which enables managers to be appraised by themselves, their superiors, their colleagues and their subordinates, is a powerful tool for developing their managerial skills and consequently for enhancing the quality of their leadership. It also contributes to an evolution of the manager / staff relationship which fosters an improved working environment and encourages progress-making initiatives.

Technip-Coflexip not only provides training programs which expand the skills and expertise of the Group's employees, but also wants to help those who were not able to complete their basic education.

"Technip-Coflexip Promotion" enables employees who did not benefit from a full education to resume their studies in order to obtain engineering or other university degrees within the Group's range of skills. For them, this education opens up new in-house career opportunities. It also strengthens their skill levels and their much-needed ability to adapt to the needs of our customers. In exchange for the company's financial support, the employees commit to stay within the Group for a specific number of years.

This policy of social promotion is complemented, externally, by the Group's support for the "Fondation de la deuxième chance" (Second Chance Foundation) under the aegis of the "Fondation de France". The aim of this foundation is to provide support to people aged between 18 and 55 years who are faced with school, university, or professional difficulties by offering them the human, technical or financial support needed to overcome them.



- Distribution of stock options corresponding to 3% of the capital: it was implemented by the Management Board, in accordance with two resolutions of the Shareholder Meetings. More than 1,200 people, close to 6.5% of the Group's workforce, have benefited from this offer. The allocation of stock options concerned all categories of personnel, the aim being to associate all those who drive Technip-Coflexip's growth, whatever their level in the organization, to the Group's financial results. These operations also strengthen the employees' sense of belonging and commitment to the new Group, by linking their day-to-day activity to the growth of the company.

Today, employees own 2.6% of the Technip-Coflexip capital.

## Mobility

The rich diversity of its disciplines and of its locations enable Technip-Coflexip to offer its workforce genuine mobility opportunities, both geographically and functionally (from one discipline to another).

For employees, this is a chance to diversify and enrich the evolution of their career and to grow through exchange of experience and exposure to different cultures. For the Group, it is an opportunity to spread best practice and working methods, to develop talents and adaptability, and as a result, to prepare the managers of the future.

This mobility, beneficial both to employees and company, is facilitated by the Group's Intranet site "Technip-Coflexip Mobility", dedicated to internal job openings. It allows employees to be aware of local and international mobility opportunities.

Transfer plan forecasts are also developed in order to organize internal mobility.

Today, more than 800 people are working outside their home country. ■



## Employee shareholders

The Group's employee shareholding policy has continued to expand since its launch in 1995 and now covers additional countries. Its aim is to involve employees in the medium and long-term growth of Technip-Coflexip.

The year 2002 was marked by two operations authorized by the Shareholders' Meeting:

- A capital increase reserved for employees: "Technip-Coflexip Capital 2002" involved the Group's 16 main centers across the world. Despite a global stock market in turmoil, more than 3,800 employees subscribed (including 48% of employees in France), thus demonstrating their confidence in the Group's future.



# Safety and Environment

## Health safety and environment program

Enhancing its HSE performance is a key element of the Technip-Coflexip business improvement strategy. In 2002 Technip-Coflexip began the task of integrating the respective QHSE Management Systems of the offshore and the onshore branches and upgrading them to deliver world class HSE performance.



The process began by establishing a coherent QHSE Committee structure to provide representation and guidance on QHSE matters for all the Business Units. This included the formation of a QHSE Management Review Committee with participation of Executive Management, ensuring QHSE has visibility at the highest level.

Other important outcomes of the integrated approach were the development of a 2 year QHSE Action Plan for 2003 & 2004 and reinforcement of the Group's commitment to HSE underlined by revision and re-issue of its HSE Policy.

In 2001 Technip asked DuPont Safety Resources to undertake a Safety Management Evaluation of its major international operations.

To quote from the report:

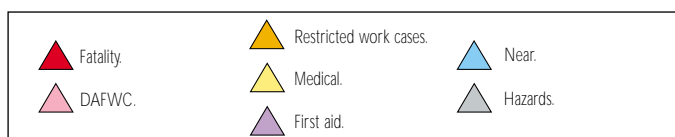
"The Evaluation Team found in particular that the interest in HSE management was sincere and that HSE emphasis had increased significantly". The report went on to recommend a number of areas where improvements could be made and these are being addressed by the respective QHSE Committees.

In 2002 Technip-Coflexip continued its relationship with Dupont Safety Resources by asking assistance in developing a management HSE training programme specific to Technip-Coflexip. In the next 2 years the programme will see over 1,500 Executive, Line and Project Managers of the Group undergo formal HSE training.

In these uncertain times one cannot help but be conscious of increased global tensions and, where these tensions are evident in the communities adjacent to our operations, security strategies have been developed to:

- identify the risks;
- provide advice and assistance to employees travelling to and living in these areas;
- protect our assets and construction sites;
- develop contingency plans.

A Security Consultancy is now retained to provide a security website, 24hr telephone support and other security support and assets as necessary.



## Health and Safety

Standards and overall performance

Technip-Coflexip adopted the OSHA reporting standard across the Group and introduced a set of HSE definitions so HSE statistics can be compared consistently across the business. Concurrent with this was the introduction of the 'Synergi' incident database which allows all Offshore Branch worksites to submit and analyse their incident reports via the Intranet. Incident data can be consolidated at worksite, Business Unit, Region or Group level.

The much improved statistical and root cause analysis provided is expected to further reduce incidents over the years and it is anticipated 'Synergi' will be expanded to include the Onshore Branch in 2004.

Technip France had its HSE Management System independently audited and certified to the OSHA 18001 standard and Technip-Coflexip Oceania the Australian equivalent, AS 4801.

Safety performance continued to improve with Group Day Away From Work Case Frequency (DAFWC) per 200,000 hours worked dropping by 28.5% in the Onshore Branch (for appx. 90 million hours) and 38.6% in the Offshore Branch (for appx. 20 million hours). Regrettably, and despite this positive trend, a fatal accident occurred in March at the Mantyluoto SPAR fabrication yard. A thorough investigation was undertaken, all actions arising implemented and the lessons learned distributed throughout the Group.

Offshore fleet DAFWC Frequency dropped from 0.29 to 0.1- a 65.5% reduction and the best performance since records began 15 years ago. Nine of the vessels completed a full year without a DAFWC. (Note: these figures exclude SEAMEC vessels).

Overall the Group DAFWCF dropped by 25% to an all time low of 0.09 for approximately 110,000 million manhours worked. These figures include all Technip-Coflexip employees and all contractors working at sites directly managed by Technip-Coflexip or where it shares management responsibility.



Technip-Coflexip 2002 "Safety Triangle"

## Group statistics 2002

	Group	Onshore Branch	Offshore Branch
Days Away From Work Cases Frequency	0.09	0.05	0.27
Total Recordable Case Frequency	0.57	0.29	1.80
Lost Workday Severity Rate	3.78	1.24	15.04

DAFWCF = Total Days Away From Work Cases x 200,000 / hours worked.

TRCF = Total Recordable Cases x 200,000 / hours worked.

LWDSR = Total Days Lost (to injury) x 200,000 / hours worked.



## Specific HSE performances

In the Offshore Branch several regions achieved 1 year of operations without a DAFWC (UK, Norway, Oceania and West Africa). Technip Offshore Norway receiving the coveted ExxonMobil Safety Council Gold Award Sword, one of only 5 ever awarded, for the outstanding HSE performance on Ringhorne Project.

In the Onshore Branch a number of projects delivered exceptional HSE results and, to name but a few with zero DAFWC:

- Haradh Gas Plant Project in Saudi Arabia (+6 million hours)
- Q-Chem Project in Qatar (+17 million hours)
- NLNGPlus Project in Nigeria (+1 million hours)
- Goias Project in Brazil, (+3 million hours)

An initiative led by Technip Offshore UK, Aberdeen was an HSE improvement in its supply chain management. Through a "Partners in Safety" Initiative, which ran for the whole of 2002, this company strengthened and improved the HSE interface with its key suppliers. A significant achievement in 2002, it is typical of the strategies used by Technip-Coflexip to achieve HSE performance improvements in participation with vendor and contractor partners.

Soft management skills are contributing to the improved HSE performance with emphasis on behavioural safety, leadership, communication skills and competence assessment.

Safety recognition schemes are used extensively to reward good HSE performance and typically result in contributions to charities selected by the workforce. Charitable organisations throughout the world have benefited from the HSE achievements of Technip-Coflexip's teams. Just a few examples include:

- ANZA Social Welfare – Karmal Muarra Nutrition Program, Indonesia
- Royal Children's Hospital – Melbourne, Australia
- Holinger Island School – Mobile, Alabama
- Health care program (AIDS, Malaria), Nigeria.

## Environment

Technip-Coflexip continued its implementation of Environmental Management Systems compliant with the well-recognised standard of ISO 14001. Organisations which satisfied the rigorous independent audit and certification process included Le Trait Manufacturing Unit (France), Technip-Coflexip Oceania (Australia) and Perry Slingsby Systems Inc (USA).

The target is for all Project Management and Manufacturing businesses to be ISO 14001 certified by end 2004 and concurrent with this Technip-Coflexip is developing a set of common Environmental Indicators to allow it to better evaluate its performance and reduce its global environmental footprint.

Offshore operations of the Group are related to installation of offshore structures and its fleet of support vessels carry little in the way of dangerous or large volume hazardous cargoes. Hydrocarbons held onboard are principally fuel oil and lubricants for power and hydraulic systems. All ships are certified to the International Maritime Organisation ISM Code which governs safety management systems for vessels.

Major construction projects are careful in their consideration of environmental impacts. As examples, the Goro Nickel site in New Caledonia, and the Oman-India fertiliser site in Oman led to implementation of specific systems to ensure eventual rehabilitation of the sites or develop low impact construction techniques.

## Quality

In 2002 work was begun to consolidate and streamline the Group Management Systems. An outline structure has been developed and implementation will start during 2003. The intention is not to 're-invent' the wheel, in fact quite the opposite since it is anticipated a coherent structure introducing clear performance standards will reduce re-work through common procedures (where appropriate), establish 'best practice' procedures/processes and improve internal knowledge systems.

Maximum use will be made of IT systems and the Group Intranet to allow real-time updates and quick dissemination. ■

# The year in review 2002



## JANUARY

### U.S.A

Atlantia awards Technip-Coflexip the fabrication of the "TotalFinaElf Matterhorn" TLP platform to be installed at a water depth of 2800 feet on Mississippi Canyon Block 243, in the Gulf of Mexico.

### Finance

Technip-Coflexip successfully launches € 793,5 million issue of bonds convertible into new shares or exchangeable into existing shares.



## FEBRUARY

### Saudi Arabia

Saudi Aramco awards Technip-Coflexip the turnkey design and construction of a major gas plant expansion project at the Berri complex intended to treat natural gas from the Qatif field.

## MARCH

### Nigeria

Nigeria LNG Ltd awards Technip-Coflexip and its partners in TSKJ a \$1.7 billion contract for the design and construction of gas liquefaction trains 4 and 5 of the Bonny complex. These two units will each produce 4 million tons a year of LNG as of 2005.

## APRIL

### New Caledonia

Goro Nickel, of the Canadian group Inco, signs a contract with Technip-Coflexip, in association with Bechtel, covering engineering, project management, procurement of equipment and materials and construction of a very large nickel (54,000 t/yr) and cobalt (5,400 t/yr) production complex at Goro.

## MAY

### Equatorial Guinea

Technip-Coflexip wins a contract from Mobil Equatorial Guinea Inc. for the procurement, fabrication and installation of more than 48 km of flexible and rigid subsea pipelines for the Zafiro Southern Expansion field, in water depths of 1,400 to 2,800 feet.

### China

BASF-YPC awards Technip-Coflexip a contract, worth about € 60 million, for the design and construction of a syngas plant at Nanjing.

## JUNE

### Peru

Technip-Coflexip, in association with Dragados Industrial, is awarded the turnkey design and construction of a major expansion of the La Pampilla refinery, which is partly owned by Repsol YPF.

### United Kingdom

Technip-Coflexip signs an EPIC contract with BG International (NSW) Ltd for subsea work on the development of the Juno field. The project includes the manufacture and installation of 77.6 km of pipelines and 51.8 km of umbilicals.

### Sale of assets

As part of its program to dispose of non-strategic assets, Technip-Coflexip transfers its 46% stake in Ipedex to a holding created to

perform a leverage management buy-out and also sells the "Well Operations" division of its British affiliate to Cal Dive International Inc.

### Corporate news

Technip-Coflexip fully acquires Isis, in which it already owned a 99.05% stake, and merges the company into the Technip-Coflexip group. It issues new shares to remunerate the minority shareholders. The resulting 6.9% treasury stock, held by Technip-Coflexip after the merger, is cancelled through a decrease in capital.

## JULY

### Abu Dhabi

Abu Dhabi Oil Refining CO. (Takreer) awards Technip-Coflexip a turnkey contract, worth \$480 million, for the revamping and expansion of the Ruwais refinery. The aim of the project is to add new units for the production of unleaded gasoline and low-sulfur gas oil and to revamp existing units.



## Angola

Esso Exploration Angola entrusts Technip-Coflexip with the fabrication and installation of flexible flowlines and risers for its Xikomba field, located in Block 15, 370 km offshore Luanda.

## Sale of assets

Technip-Coflexip sells its Newcastle-based McNulty construction yard to the company's managing director. The transaction is part of Technip-Coflexip's program to dispose of non-strategic assets.



## AUGUST

### Oman

The \$ 770 million contract — signed between Oman India Fertiliser Company and Technip-Coflexip in association with Snamprogetti — comes into force. The project covers the turnkey design and construction of a major ammonia/urea complex at Sur.

## SEPTEMBER

### Iran

The €330 million contract, signed with an affiliate of NPC, for the design and construction of the 10th Complex's steamcracker at Asaluyeh comes into force. With a capacity of 1,345,000 t/yr, this plant, which will use Technip-Coflexip's proprietary technologies, will be the world's largest steamcracker.

## Canada

Husky Oil Operations Ltd awards Technip-Coflexip an EPIC contract, worth €165 million, for the engineering, procurement and installation of a subsea production system for its White Rose field, located offshore Newfoundland.

## Norway

Esso Norge awards Technip-Coflexip a €75 million contract for the supply and installation of a subsea pipeline system for the Ringhorne Jurassic, Jotun and Balder gas fields.

## OCTOBER

### Iran

Technip-Coflexip signs, with an affiliate of NPC, a €100 million contract for the design and construction of a low-density polyethylene plant within the 9<sup>th</sup> Olefins Complex at Asaluyeh.

## NOVEMBER

### Australia

Technip-Coflexip, in association with Subsea 7, wins a US \$55 million contract for subsea works related to the installation of the Trunkline System Expansion Project for the Goodwyn and Rankin gas condensate fields in the North West Shelf.

### Malaysia / Thailand

CTOC issues the mechanical completion certificate for the Cakerawala offshore complex (5 platforms) — a turnkey project worth \$600 million and designed and built by a consortium led by Technip-Coflexip.

### China

Technip-Coflexip, in association with Chiyoda and Mitsubishi, is awarded a contract, by CNOOC and Shell Petrochemicals Co. Ltd, for the engineering, equipment supply and construction of a petrochemical complex at Huizhou, Guangdong Province.



## DECEMBER

### U.S.A.

Kerr-McGee and Technip-Coflexip sign a contract for the construction of the world's first "Cell Spar" platform for the Red Hawk field, located in 5,300 feet of water in the Gulf of Mexico. The "Cell Spar" technology, selected by Kerr-McGee, is a new innovative generation of the range of Spar platforms developed by Technip-Coflexip and is particularly well adapted to small deep-water oil and gas fields.

### Turkmenistan

The €130 million contract signed in January between Technip-Coflexip and Turkmenneftegas comes into force. The project covers the design and construction of a diesel hydrotreating plant in the refinery of Turkmenbashi. ■





The central platforms of Cakerawala field, Malaysia / Thailand.

# Fields of activity

## Offshore

Offshore represents 47.7% of 2002 revenues and 30.5% of the backlog at December 31, 2002. The order book for "SURF" (Subsea Umbilicals Risers Flowlines) work has continued to grow, thanks notably to a major order in Canada and several North Sea and West African projects, while at the same time, the Floaters activity has dropped significantly in terms of backlog due to the lack of attractive opportunities. With regard to projects in progress, the Floaters activity remains high in the Gulf of Mexico thanks to the fabrication of several Spar platforms and a contract for a new application developed by the Group, the Cell Spar. In the area of fixed shallow water platforms, Technip-Coflexip has successfully completed a US \$ 600 million lump-sum turnkey project for the Cakerawala gas field development in Malaysia/Thailand and continues the construction of the Amenam platform in Nigeria.



### ■ NORTH SEA

#### UK sector

The offshore market in the UK sector of the North Sea is relatively mature. Development of the fields is essentially confined to the tieback of satellite fields to existing infrastructures. Nevertheless, in 2002 Technip-Coflexip was awarded major projects in this zone, each worth close to € 50 million.

In June, Technip-Coflexip was awarded an EPCIC (Engineering, Procurement, Construction, Installation and Commissioning) contract by BG International (NSW) Ltd. for their **Juno** subsea development. The contract, worth € 46 million, included the tieback of the seven Juno wells. With the additional tieback of the new Minerva platform to the existing Cleeton platform, the contract represents a significant project for the North Sea's oil industry. Technip-Coflexip undertook the project management, engineering and installation of all production pipelines required for the field's development (that is, a total of 77.6 km of pipelines), the production control umbilicals (51.8 km), as well as project management, transportation and installation of two subsea manifolds, tie-ins, testing and commissioning of the complete infrastructure. Technip-Coflexip's Evanton spoolbase in Scotland manufactured the pipelines and the Group's subsidiary DUCO, the umbilicals. The target of first gas for the end of 2002 was achieved in December.

Technip-Coflexip was awarded a pipelines and subsea infrastructure EPIC (Engineering, Procurement, Installation and Commissioning) contract by Marathon Oil UK Ltd. for the **Braemar** field and the Brae to Miller gas transfer pipelines. The contract, worth over € 52 million, includes the tieback of the Braemar production well to the East Brae platform and the installation of a new gas transfer pipeline between the Brae B and Miller platforms. The installations include the Braemar production pipeline (12.5 km), the Brae B to Miller linkline (8.5 km) required for the development, the production control umbilical (12.5 km) between the Braemar well and the East Brae platform and associated equipment. The Group is also responsible for the tie-ins, testing and commissioning of the completed infrastructure, with a target of first gas by the end of 2003. Several vessels from the Technip-Coflexip fleet will carry out construction and installation of the subsea infrastructure between March and August 2003. Fabrication of the pipe-in-pipe system (to connect the Braemar well to the East Brae platform) will be undertaken by Technip-Coflexip's Evanton spoolbase in Scotland. The control umbilical will be designed and manufactured by Technip-Coflexip's Newcastle subsidiary, DUCO Ltd.



CSO Apache.



DUCO's manufacturing plant in Newcastle.

For ChevronTexaco, Technip-Coflexip successfully completed an EPCI project for the tieback of the satellite fields of the **Caledonia** subsea development to the Britannia platform. Technip-Coflexip carried out the design, fabrication and installation of an 8" pipe-in-pipe production pipeline to sustain an appropriate flow in the production pipeline. The whole of the installation work was carried out by two of the Group's vessels, CSO Apache and the Normand Pioneer. The project will enable ChevronTexaco to produce 13,000 additional barrels of crude per day. First oil was in October 2002.

In the framework of fast-track contracts for Kerr-McGee, Technip-Coflexip carried out the project management and subsea construction in the **McLure** field, as well as the Gryphon/Beryl/Leadon gas pipeline system. The contracts included a 2.3-km tieback between the McLure wellheads and the Gryphon FPSO and a 21 km 16" gas export pipeline between the Gryphon Subsea Isolation Valve and the Beryl Alpha Riser Access Tower. The gas export pipeline was then extended to the Leadon FPSO by a 7.5-km gas import flowline. Technip-Coflexip was responsible for project management, engineering, manufacture, installation, testing and the pre-commissioning of each of the projects.

The Group was also responsible for the supply and installation of two dynamic flexible risers and a dynamic umbilical riser from the **Gryphon** riser base to the Gryphon FPSO. The flexible pipelines were manufactured at the Technip-Coflexip plant at Le Trait and the rigid pipelines at the Group's Evanton spoolbase. Several of the Group's vessels were called on for the subsea construction and installation from April to May 2002.

In February, another contract for Kerr-McGee concerned the decommissioning of the **Hutton** TLP and its associated subsea structures. The project was completed successfully. Technip-Coflexip provided the diving support vessel and the subsea services required to unmoor the platform, dismantle and recover the subsea structures, and clean up the site. After 18 years of service, the platform discontinued production in May 2001 and was hauled away and sold by Kerr-McGee for use at another production site.





### Norwegian sector

- ■ ■ In December 2002, Technip-Coflexip signed a contract with Statoil for the installation of infield flowlines, umbilicals and subsea structures at the **Kristin** field. The contract, valued at more than € 60 million, includes the installation of four manifolds, 39 km of 10" production



flowlines (13% chromium) with direct electrical heating cables, 22 km of oil export line to Asgard C, 16 km of umbilicals, 26 km of fiber optic cable, tie-in spools and subsea tie-in to templates. The line pipe, umbilicals, and manifolds are supplied by Statoil.

The Group's engineering center in Oslo, Norway, is responsible for project management and engineering. Fabrication of the flowlines will take place at Technip-Coflexip's Orkanger spoolbase. Several Technip-Coflexip vessels will be used for the offshore installation activities.

Technip-Coflexip was also awarded an EPCI contract by Esso Norge AS, worth some € 75 million. It includes procurement and installation of a system of subsea flowlines linking the **Ringhorne Jurassic** and **Jotun** gas fields as well as the **Balder** field at water depths of 120 to 130 meters.

This contract follows the Group's successful work on the Ringhorne and Balder Development Projects and comprises the procurement, fabrication, and installation of 24 km of 12" rigid flowlines, 24 km of 8" rigid flowlines, and 33 km of 6" rigid flowlines, 8" and 6" flexible risers, and a 6" flexible jumper, all of which will be manufactured at the Group's plant in Le Trait, France. The work also includes hook-up of spools using divers, Flex Connect' diverless tie-ins, pre-survey, trenching, and commissioning. Operations at sea will take place during the summer of 2003 and will be performed in cooperation with Subsea 7.



The Norsk Hydro contract that Technip-Coflexip was awarded in 2001 for the **Fram Vest** development is in progress. The engineering phases for the flexible and rigid pipelines were completed in 2002. Fabrication and installation will take place in the course of 2003, with a target of first oil for the end of the year.

## ■ NORTH AMERICA AND GULF OF MEXICO

### Canada

Technip-Coflexip's affiliate, Technip Offshore Canada, was awarded an EPIC contract by Husky Oil Operations Ltd for the **White Rose** development, offshore Newfoundland. The contract is worth € 165 million and represents a major milestone for the Newfoundland offshore industry since it will be the first time the project management and engineering for a subsea development of this size is performed entirely in the region.



The contract covers the design, supply, and installation of the White Rose subsea production system, incorporating the flexible riser system, in-field flowlines, dynamic and static umbilicals, subsea manifolds, trees, and subsea control system. The workscope requires 42 km of flexible risers, flowlines and umbilicals, five subsea manifolds and between 15 and 21 Christmas trees and wellheads distributed across three drill center glory holes. The contract also includes an option for Technip Offshore Canada to install the mooring system for the FPSO (Floating, Production, Storage, and offloading unit).

## Gulf of Mexico

### Platforms

Technip-Coflexip's 2002 activity in the design and fabrication of offshore platforms continued at a sustained pace, thanks to several major orders and the commissioning of new deepwater installations in the Gulf of Mexico.

Technip-Coflexip signed a contract with Kerr-McGee and its partner, Ocean Energy, for the construction of the world's first "Cell Spar" for the **Red Hawk** field located at a water depth of 1,615 meters in Garden Banks Block 877. The contract includes the supply and installation of a Spar floating production platform hull and its moorings, topsides, risers and in-field flowlines to develop the field. The new "Cell Spar" will be entirely manufactured by Technip-Coflexip at its Gulf Marine Fabricators site at Corpus Christi and will be commissioned in time for first oil in the second quarter of 2004. The contract follows other projects awarded to the Group by Kerr-McGee, the first operator to have used a classic Spar in the Neptune field, the Nansen "Truss" Spar, and the Boomvang and Gunnison Spars in the Gulf of Mexico.



The Red Hawk Cell Spar model.



The Gunnison Spar's hull under construction in Mantyluoto.

The "Cell Spar" is an innovative extension of the Technip-Coflexip range of Spars. It consists of a series of tubes each linked around a central tube and can be used for production applications — with dry trees or subsea trees — or drilling applications. It is perfectly suited to small deepwater oil and gas fields or to develop satellite fields in the Gulf of Mexico. The "Cell Spar" can be fabricated locally according to market demands, helping to reduce execution schedules and increase local content.

The engineering, procurement, and construction project for a Spar floating production platform hull, associated moorings and riser system for the **Gunnison** field, which Kerr-McGee awarded Technip-Coflexip in 2001, is well under way for delivery in third quarter 2003. Engineering of the hull was completed in 2002 by Technip Rauma Offshore Oy, and fabrication has begun at the Mantyluoto facility in Finland. The Gunnison Spar's hull will be 167.3 meters high, 29.8 meters in diameter, with a displacement of 38,000 tons and a steel weight of some 14,000 tons. It will be the third "Truss" Spar delivered to Kerr-McGee and includes a reinforced tubular system and plates to replace the lower cylindrical part of the "Caisson" hull.



### Gulf of Mexico

#### Platforms

- The Truss Spar platform, which BP contracted Technip-Coflexip to fabricate in December 2000 for its **Horn Mountain** field, was delivered to the client in May 2002 on schedule. This floating platform with dry tree completions was installed during the summer in a water depth of some 1,650 meters, thus beating the record for the deepest floating platform of its kind. It will have a production capacity of close to 65,000 barrels/day of oil and 650 million cubic meters/year of gas. It is also the fruit of cooperation among Group entities across the globe. The hull was fabricated in the Technip-Coflexip yard at Mantyluoto, Finland, the topsides were assembled by Gulf Marine Fabricators in Texas, while responsibility for project management and basic engineering went to Technip Offshore Inc. in Houston. The Horn Mountain platform was commissioned at the end of 2002 with first oil in November.

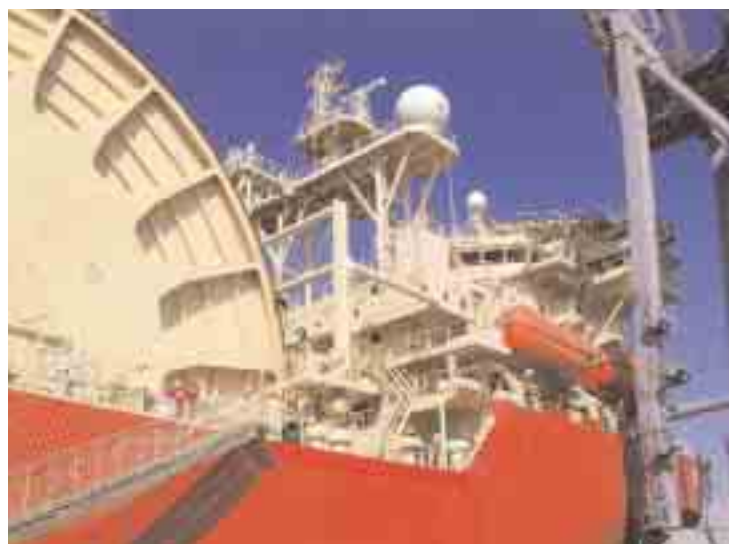
Still in the area of Truss Spars, Technip-Coflexip also won the contract from BP for the fabrication of the hulls of the **Holstein** and **Mad Dog** Spars for the Gulf of Mexico. Fabrication has started at the Mantyluoto yard in Finland and client delivery is scheduled for second half 2003.



Approximate scale of a Truss Spar platform over the city of Houston.

Conoco awarded Technip-Coflexip a fabrication and integration contract for TLP topsides for the **Magnolia** field at a water depth of 1,430 meters in the Gulf of Mexico Block 783. No other platform of this kind has ever been installed at such water depths. Production is estimated at 50,000 barrels/day of oil, 150 million cubic meters/day of gas, and 20,000 barrels/day of water.

The contract includes fabrication, integration and commissioning of two 7,000-ton modules, the living quarters and the drilling unit on the platform hull. The project started up in third quarter 2002 and should be completed by May 2004.



In January 2002, Atlantia awarded Technip-Coflexip US affiliate, Gulf Marine Fabricators (GMF), the fabrication contract for the "TotalFinaElf Matterhorn" TLP. The contract includes procurement, fabrication, and outfitting of a 6,000-ton topsides facility with a height of 18.9 meters and a surface area of around 5,900 square meters. It also includes the fabrication of six piles, each 2.44 meters in diameter and 126 meters long for a total weight of 2,100 tons. The TLP will be installed at Mississippi Canyon Block 243 of the **Matterhorn** field in 850 meters feet of water.

GMF has carried out the work at its yard in Aransas Pass, Texas. Fabrication of the piles was completed in the summer of 2002. The topsides work will be completed in the course of 2003.

### Subsea flowline systems

Within the **Matterhorn** development, TotalFinaElf E & P USA Inc., a subsidiary of Totalfinaelf SA and Chevron Pipe Line Company, awarded Technip Offshore Contractors Inc. a contract for the installation of subsea flowlines comprising two 25.4-km 8" and 10" rigid flowlines and associated Steel Catenary Risers (SCR) between the Matterhorn TLP and the existing flowlines. Deep Blue successfully installed all subsea flowlines in fourth quarter 2002.

Technip-Coflexip was also awarded by Pioneer Natural Resources USA, Inc. (a subsidiary of Pioneer Natural Resources Company) and Mariner Energy, Inc. an EPCI contract valued at over US \$35 million. It covers design, procurement, commissioning, and installation of a pipeline system comprising some 52 km of 10" rigid pipe and hydraulic control umbilical between two subsea wells and the new Falcon's Nest platform.

The **Falcon** field is located in East Breaks Blocks 573 and 623 in water depths of 120 to 1,060 meters. The Group's ultra deepwater vessel, Deep Blue, successfully installed the rigid pipe and umbilicals during the 2002 fourth quarter.

Technip Offshore Contractors Inc., a US affiliate of the Group, won the contract from BP America Production Company for fabrication and installation of a deepwater pipeline for the **King West** field in the Mississippi Canyon Block 84 at a water depth of 1,655 meters. Installation of the 3.5 km 6" by 10" pipe-in-pipe will be carried out by Deep Blue in the second quarter of 2003. The reeled pipe installation method will be used to enable the pipe sections to be assembled on land in total security.

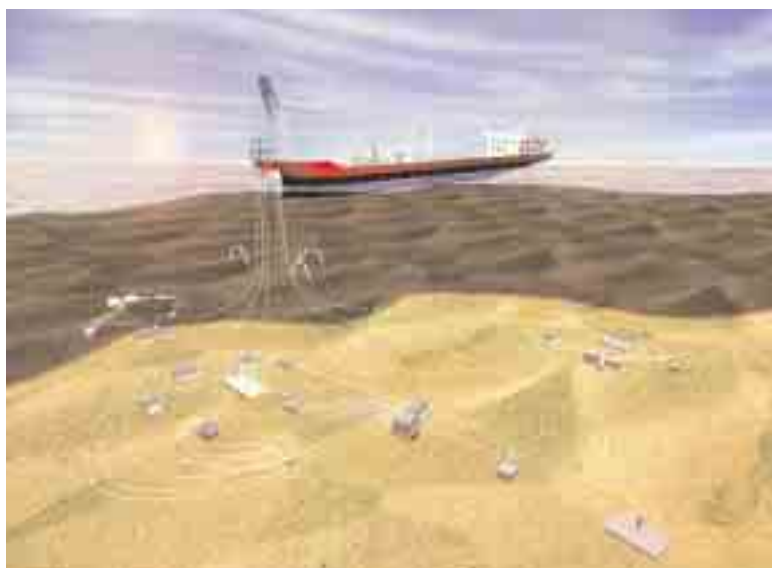
## BRAZIL

The local flexible flowlines plant has seen an activity level equivalent to that of 2001, notably thanks to fabrication for African projects that supplemented the production for its prime Brazilian client, Petrobras. The plant manufactured and delivered close to 23 km of production flowlines for the Mobil Equatorial Guinea **Ekanga Notch** field.

Technip-Coflexip was also awarded a contract by Petrobras for the fabrication and installation of gas flowlines between platforms P-37 and P-40 in the Campos basin. Finally, the Group also signed a contract with Petrobras to extend the charter of its flexible flowline laying vessel, Sunrise 2000, to 2006.



Sunrise 2000.



Xikomba field layout, Angola.

## AFRICA

### Angola

- Technip-Coflexip was awarded a contract by Esso Exploration Angola (Block 15) Limited (Esso) for the procurement, fabrication, and installation of flexible flowlines and risers connected to an FPSO, plus the installation of umbilicals and rigid jumpers for the **Xikomba** field offshore Angola.

This contract follows the successful completion of a pre-qualification and testing program carried out by Technip-Coflexip in 2001. The Xikomba field is located in Block 15 offshore Angola approximately 370 km northwest of Luanda. The Angolan national oil company, Sonangol, is the concessionaire of the block. Under a production sharing agreement with Sonangol, Esso is the operator of Block 15 and holds a 40% stake. The other partners are BP Exploration Angola Ltd., Agip Angola Exploration B.V. and Den Stats Oljeselskap A.S. The Group's worldwide deepwater expertise was a key element in this new cooperation with Esso. Xikomba is a new deepwater FPSO project connected with Technip-Coflexip flexible risers, the deepest ever installed in African waters.

To pursue its business development and to increase its production capacities in Angola and West Africa, Technip-Coflexip has signed a joint venture agreement with Sonangol, the Angolan national oil company, with a view to creating a common affiliate, Angoflex Limitada. The latter will operate an umbilicals plant that is currently

under construction at the Sonamet fabrication yard at Lobito. The plant will be operational as of mid-2003 and will include all the machinery necessary to manufacture steel tube umbilicals and related products. Its production capacity will be 50 km of umbilicals per year. The new plant operations will supplement the other Group sites in Angola (Angoflex and Technip Angola, AMC Angola) and will enable the Group to strengthen its relationship with Sonangol by adding industrial operations to the existing portfolio of activities.

### Equatorial Guinea

Technip-Coflexip was awarded a contract by Mobil Equatorial Guinea Inc. for the procurement, fabrication, and installation of more than 48 km of flexible and rigid subsea pipelines for the **Zafiro** Southern Expansion field, offshore Bioko Island. The Zafiro Southern Expansion field is located approximately 65 km northwest of Malabo in water depths of 425 to 850 meters.

The flexible pipes will be manufactured at the Technip-Coflexip plant in Le Trait, France and the Evanton spool-base in Scotland will provide the rigid pipeline. Group vessels will install the rigid and flexible lines for a first oil scheduled for 2003.



## Nigeria

For the development of the **Amenam** field, operated by Elf Petroleum Nigeria Limited, Technip-Coflexip and Saibos have joined forces to carry out a turnkey contract worth some US \$330 million for the design, construction, and installation of a 130,000-barrels/day offshore oil processing/production platform, plus related utilities on the field located 35 km off the coast of Nigeria at a water depth of 40 meters. Construction of the topsides (11,000 tons) and the jacket was completed on schedule between December 2002 and January 2003 at the McDermott yard at Jebel Ali (United Arab Emirates). Final on-site installation will take place during first quarter 2003 using the Unideck TPG technology.



Nigerian Agip Exploration (NAE) awarded Technip-Coflexip a turnkey contract worth some €50 million, for the **Abo** deepwater field expansion. This field is located offshore Nigeria in Block 316 at a water depth of 800 meters. The development includes tie-ins to an FPSO with three production wellheads, a gas injection wellhead, and two water injection wellheads using nearly 34 km of 6" flexible flowlines, including 16 km of high



Load out of the Amenam platform, Nigeria.

insulation flowlines and risers. The flowlines were delivered in December 2002 and Group vessels have begun laying operations, which will continue in 2003.

Within the project awarded in 2001 by Single Buoy Mooring (SBM) for the development of the **Bonga** field operated by Shell at a water depth of 1,100 meters, Technip-Coflexip continues the engineering and fabrication of the flexible risers, which will be installed by Deep Pioneer in the summer of 2003.

## Congo / Gabon

Technip-Coflexip has completed two flexible flowline installation projects to the satisfaction of its clients. One was for Agip and concerned the **Djambala** field in the Congo, the other was for Vaalco's development of the **Etame** field in Gabon.

## South Africa

As part of the EPCI contract for the subsea development of the **Sable** field of Soekor E&P (Pty) Ltd., two Technip-Coflexip vessels, the CSO Constructor and Deep Pioneer, installed the FPSO mooring system, the flowlines and the risers towards the end of 2002. Operations at sea should be completed by mid-2003. ■■■



CSO Deep Pioneer offshore South Africa.



3D-model of the Shah Deniz TPG 500 platform, Azerbaijan.

## ■ CASPIAN SEA

### Azerbaijan

- Technip-Coflexip has completed the design study requested by BP for the installation of a fixed drilling and production platform for the development of the **Shah Deniz** offshore field. BP had already selected the design of the self-installing TPG 500 platform from Technip-Coflexip for this project. In December 2002, BP ordered the proprietary equipment for this platform from Technip-Coflexip. BP and its partners made their final investment decision in the course of the first quarter 2003, which should allow Technip-Coflexip to be confirmed as being responsible for detailed engineering and equipment procurement.

### Turkmenistan

Dragon Oil has contracted Technip-Coflexip to carry out engineering services covering an assessment study of the existing installations in the **Lam** and **Zhdanov** fields. Detailed engineering, procurement and project management of the construction of two production platforms and two flowlines began in September 2002.



## ■ MIDDLE EAST

### Iran

The Technip-Coflexip/NPCC consortium continues to carry out its contract covering engineering and procurement for the development of the **Soroosh** and **Nowrooz** fields operated by Shell Exploration BV in water depths of 30 to 40 meters. The Soroosh and Nowrooz fields are located 80 and 50 km, respectively, from Kharg Island in the Persian Gulf. Their development includes three production platforms, two living quarters platforms, two wellhead platforms, and related pipelines.



Soroosh & Nowrooz platforms under construction.

## ■ ASIA-PACIFIC

### Australia

Technip-Coflexip Oceania and Subsea 7 (Australia) Pty Ltd were awarded a US \$55 million contract by Woodside Energy Ltd for the subsea installation portion of the "Trunkline System Expansion" project. The contract is for the subsea offshore works associated with the installation of the new trunkline from the **Goodwyn** and **Rankin** gas condensate fields on the North West Shelf. The new trunkline will facilitate the increased production from existing and new fields in the area. The scope of work also includes dewatering, conditioning and stabilization of the trunkline by the installation of around 900 concrete gravity anchors. Engineering started at the end of 2002 and the offshore works will be carried out in three phases between August 2003 and April 2004 by the vessel CSO Venturer.

## Malaysia

Technip-Coflexip, the leader of a consortium with Malaysia Shipyard & Engineering (MSE), was awarded a contract by Talisman Malaysia Limited for project management, engineering, and procurement of equipment for the **Bunga Raya** platform wellheads. As subcontractor to MSE, the Group's affiliate based in Kuala Lumpur is also to carry out the engineering of the jacket for the central processing platform, whose 9,000-ton deck will be installed by the "float-over" method.

For Petronas Carigali Sdn Bhd, the Group's Malaysian affiliate has carried out the detailed engineering and technical support services for the revamping and expansion of the **Angsi-A** oil production complex as well as design engineering for the development of the **Bergading** field in Block PM-302 at 160 km from Kelantan.

It was also contracted by Murphy Oil for detailed engineering of the **West Patricia** water injection platform, which will be installed at a water depth of 40 meters offshore Bintulu Island. The approved design is based on that of the self-installing platform.

The project to develop the **Cakerawala** gas field located in the Malaysia-Thailand Joint Development Area was completed in 2002 on schedule and on budget and to the satisfaction of the client, Carigali-Triton Operating Company (CTOC).

The US \$600 million turnkey contract was awarded in March 2000 to the consortium led by Technip-Coflexip and including Samsung and Saipem. It involved the design and fabrication of a drilling and treatment complex comprising three production platforms, a compression platform, a central processing platform, a power generation unit, as well as subsea pipelines, centralized control systems and a 500,000-barrel FSO.

The first compression train and the FSO were commissioned and handed over to the client in August 2002 and the second train at the end of October, bringing the overall capacity of the facilities to 425 million SCFD of gas and 15,000 barrels/day of condensates. Mechanical acceptance was issued on November 15, 2002.

This project is the largest offshore lump sum turnkey project ever been completed in Asia. It represented 11 million man-hours, including 600,000 man-hours for engineering, and 2 million man-hours for offshore work.



The Cakerawala processing platform sail away.

## Brunei

The project awarded by Brunei Shell Petroleum at the end of 2001 for Phase I of the **Egret** gas development project is now 94% complete. The main structures, including a fixed drilling platform, a multi-phase pipeline and subsea cable, are now installed.

## Indonesia

BP has contracted Technip-Coflexip to carry out the basic engineering for the development of the **APN** field located 100 km northeast of Jakarta, as well as the detailed design of certain of the installations.

## China

The Technip-Coflexip engineering center at Kuala Lumpur has won its first offshore contract in China. It is a basic engineering contract awarded by a joint venture between CNOOC and Sinopec and covers the development of the **Chunxiao** gas fields located 450 km offshore Shanghai in the East China Sea.







View of the Bonny LNG complex, Nigeria.

# Fields of activity

## Onshore and Downstream



The slowdown in "Onshore and Downstream" order intake in 2000–2001 resulted in a decrease in 2002 revenues and income. In 2002, on the other hand, order intake increased substantially and contributed to the growth of the Group's backlog. Technip-Coflexip notably won and brought into force several major projects in the Middle East (refining units in Abu Dhabi,

gas treatment units in Saudi Arabia, a fertilizer complex in Oman, and a steam cracker in Iran), plus a US \$675 million project in Qatar at the beginning of 2003 for the world's first large-scale GTL plant. The Group was also awarded trains 4 and 5 of the liquefied natural gas complex in Nigeria, as well as several significant contracts in China in the petrochemicals sector. These new projects, which are for the most part still in the engineering phase, will enter a more active phase in the second half of 2003. They should contribute to a significant increase in revenues and income in the second half of 2003 and even more so in 2004.

### ■ EUROPE

The polypropylene plant "PPF6", designed and built by Technip-Coflexip at Geleen in the **Netherlands** for Sabic Polypropylene BV (formerly group DSM), came on stream in October 2002. This 300,000-ton/year plant is the largest polypropylene unit based on the BP Innovene gas-phase technology in operation worldwide and the third of its kind to be awarded to Technip-Coflexip by DSM. It is also the first unit of substantial size to comply with the new European Pressure Equipment Directive.

In January 2003, TotalFinaElf awarded Technip-Coflexip a €50 million contract for the design and construction of an FCC gasoline hydrotreating unit for its refinery at Antwerp, **Belgium**. The unit will use the "PRIME G+" process licensed by Axens (IFP) and will have a capacity of 57,500 BPSD. It will allow the production of gasolines with a sulfur content below 10 ppm without lowering the octane rating. The unit should be ready for start-up in October 2004, enabling the Antwerp refinery to meet 2008 standards for the quality of refined gasolines.

Mechanical acceptance of the new 250,000-ton/year high-density polyethylene unit at Solvay's Lillo site in Belgium took place within schedule.

In **France**, Technip-Coflexip expanded the capacity (by 35%) of the Carling steam cracker and delivered the revamped facility, including a Technip-Coflexip-designed GK6 furnace, to Atofina.

In **Germany**, Technip-Coflexip successfully completed the € 30 million turnkey contract for the construction of a 35,000-m<sup>3</sup>/hour hydrogen unit on the site of the Schwedt refinery and PCK Refinery issued the related mechanical completion certificate. Also, the completion of work on the 30,000-m<sup>3</sup>/hour hydrogen unit for OMV in Schwerat, Austria, is scheduled for May 2003.



In May 2002, the construction of the offsites and utilities for the new Repsol hydrocracker at Tarragona, **Spain**, was successfully completed. This engineering and services contract included a 65,000-m<sup>3</sup>/hour hydrogen unit for the Spanish subsidiary of Air Products. It is the fifth hydrogen unit built by the Group in Spain over the past few years and the second one to be built in Europe under a collaborative agreement between Technip-Coflexip and Air Products.

The Group has also completed the revamping of the nine steam cracker furnaces of the Repsol Quimica ethylene unit in Tarragona. The mechanical completion certificate for the last furnace was issued in January 2003.



The polypropylene plant "PPF6" at Geleen, The Netherlands.

## NORTH AMERICA

Having carried out the front end engineering design for the project, Technip-Coflexip was awarded by Enterprise Products Partners the turnkey contract for the construction of a 3.5 billion-m<sup>3</sup>/year cryogenic gas processing line for its Neptune plant in Centerville, Louisiana, **U.S.A.**

Similarly, following the completion of the front end engineering design, ExxonMobil awarded Technip-Coflexip the detail engineering and supply of a syngas plant for its "Acid Gas Injection" facility in LaBarge, Wyoming. This plant, which is currently nearing completion, will produce 15 MMSCFD of hydrogen contained in a syngas stream, using natural gas as the feedstock.

The construction of a polyethylene plant at the CPC complex at Cedar Bayou in Texas is in its final phase, with start-up scheduled for March 2003. The plant was designed and constructed by Technip-Coflexip and BE&K for Chevron Phillips Chemical Co. (CPC) and Solvay Polymer. Using CPC technology, it will produce 318,000 tons of high-density polyethylene a year.

In the hydrogen sector, Air Products and Technip-Coflexip have extended, through 2011, their alliance covering construction of all "over-the-fence" hydrogen plants that will be built throughout the world based on the Air Products process. In 2002, in the framework of this exclusive agreement, Air Products launched the construction of two new plants in Louisiana: the first will be built at New Orleans to feed the Murphy Oil hydrocracker at Meraux; the second is for the Conoco-Phillips refinery at Lake Charles. These projects are the 18<sup>th</sup> and 19<sup>th</sup> hydrogen facilities, respectively, constructed in the framework of the Air Products/Technip-Coflexip alliance.



## ■ LATIN AMERICA

- In June 2002, Technip-Coflexip, in a joint venture with the Spanish group Dragados Industrial, was awarded a turnkey contract for a major expansion of the La Pampilla refinery near Lima, **Peru**. The project covers engineering, equipment supply, and construction of new units (vacuum distillation, visbreaker, Merox unit and water treatment) as well as the revamp of its current crude processing unit and the related utilities. Start-up of the installation is scheduled for July 2004.

In December 2002, Empresa Colombiana de Petroleos (Ecopetrol) awarded Technip-Coflexip a roughly € 19 million contract for the execution of the basic design and the project management for the master plan of the Cartagena refinery development project in **Colombia**. The development project aims at increasing refinery capacity from 75,000 à 140,000 BPSD and at achieving the highest international standards of refined products and environmental levels.

Technip-Coflexip, in consortium with Jantech, completed the €190 million project for the construction of 10 new units and the revamping of existing units in the ISLA (a PDVSA affiliate) refinery at Curaçao in the **Netherlands Antilles**. The objectives of the project were to increase the capacity and technical performance of the refinery and to treat atmospheric emissions. The newly built units included a hydrogen production unit, sulfur recovery units, a tail gas treatment unit, a steam reformer, and a hydrocracker.



The Curaçao refinery's steam reformer, Netherlands Antilles.



The signing ceremony for the GTL project in Qatar.

## ■ MIDDLE EAST

On January 30, 2003, Oryx GTL Ltd, a joint venture between Qatar Petroleum and the South African company Sasol, awarded Technip-Coflexip an EPC contract worth about US \$675 million for the design and construction of the world's largest Gas-To-Liquids (GTL) complex at Ras Laffan in **Qatar**. The complex will use as feedstock natural gas from the North Field to produce 34,000 barrels per day of liquids — 24,000 bl/day of diesel, 9,000 bl/day of naphtha, and 1,000 bl/day of liquefied petroleum gas (LPG). It will be based on the Slurry Phase Distillate process developed and commercialized by Sasol in South Africa. Derived from the Fisher-Tropsch technology, this process converts gas to high-quality, sulfur-free, aromatics-free and therefore environmentally friendly liquid hydrocarbons. Production at the Ras Laffan complex is slated to begin mid 2006. In addition, GTL is an efficient and safe solution to the problem of transporting natural gas over long distances.

With its huge gas reserves, Qatar aims to play a major role in developing GTL projects. Qatar Petroleum already has plans to eventually triple the capacity of the Ras Laffan complex and to undertake several similar projects in partnership with foreign investors. For Technip-Coflexip, this contract, won against high-level international competitors, represents a major breakthrough on the emerging market of GTL facilities for which several projects are under development in Africa and the Middle East.

In a joint venture with Chiyoda, Technip-Coflexip is also carrying out the debottlenecking of the Qatargas LNG (liquefied natural gas) facility at Ras Laffan to increase the capacity of each train from two to three million tons per year as of 2005.

The Q-Chem petrochemical complex at Mesaieed is currently in start-up phase. A 50/50 joint venture between Technip-Coflexip and Kellogg Brown & Root (KBR) won this US \$750 million contract from Q-Chem (Qatar Petroleum/Phillips Petroleum) in October 1999. The facilities include a 500,000-ton/year ethylene cracker using KBR technology with five furnaces designed and built by Technip-Coflexip and based on its proprietary technology, a 450,000-ton/year polyethylene plant, and a 45,000-ton/year hexene-1 unit using Phillips technology, as well as utilities and off-sites. Construction was completed in 24 months and up to 6,500 people were working on the site during the peak period in 2002. All in all, the project represented two million engineering manhours and 31 million construction manhours and



recorded only two LTIs (lost time incidents). In 2002, Phillips Petroleum awarded Technip-Coflexip a feasibility study for the future Q-Chem 2 project.

The turnkey contract from Oman India Fertilizers Co. (Omifco), worth around US \$770 million, for an ammonia/urea complex in **Oman**, came into force in August 2002. The 50/50 joint venture between Technip-Coflexip and Snamprogetti is to design and construct two 1,750-tons/day ammonia plants, two 2,350-tons/day urea plants, and two granulation units, as well as associated utilities, offsites and marine works at Sur, 150 km from Muscat. The facility will be the world's largest grass-roots fertilizer complex. It will contribute to the profitable use of the Sultanate of Oman's vast gas resources and almost all the urea production will be exported to India. Completion of the work is scheduled for July 2005.

In June 2002, Abu Dhabi Oil Refining Co. (Takreer) awarded Technip-Coflexip a US \$480 million turnkey contract for the expansion of the Ruwais Refinery at Abu Dhabi in the **United Arab Emirates**, as well as the addition of new units for the production of unleaded



The Q-Chem petrochemical complex, Qatar.

gasoline and low sulfur gas oil. Technip-Coflexip will provide naphtha hydrotreating units, sulfur recovery units, a gas oil hydrotreater unit, and an isomerization unit. The contract also includes the revamp of the existing units and the expansion of all the refinery's utilities and offsite facilities. The project is scheduled for completion in July 2005.

In association with Al Jaber Energy Services, Technip-Coflexip continues to work on the €500 million project to design and build a 185-km drinking water aqueduct from Fujairah to the town of Al Ain in Abu Dhabi, a 16-km pipeline linking it to Sharjah Emirate, pumping stations and water reservoirs. At end 2002, construction was around 50% complete, with project completion slated for August 2003.

In March 2002, Saudi Arabian Company (Saudi Aramco) awarded Technip-Coflexip a major turnkey contract for the expansion of the Berri gas plant in **Saudi Arabia**. The objective of the project is to increase the capacity of the facilities for treating gas from the Qatuf field by 250 MMSCFD. It includes supply of a low-pressure gas sweetening unit, two new sulfur recovery units, a new feed gas compressor, the expansion of the existing utility system, and a revamp of the existing units. The project should be completed by the end of 2005. ■■■



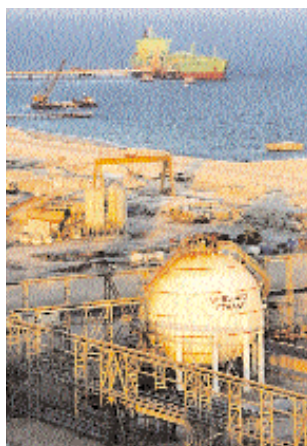
## Fields of activity Onshore and Downstream

- Saudi Aramco also awarded Technip-Coflexip a turnkey contract for a sulfur plant at Riyadh refinery. The construction of two 70-tons/day sulfur recovery units and related facilities will allow for the reduction of sulfur dioxide emissions to the atmosphere, helping to protect the environment.



The construction of the utilities, offsites, and the pipeline network related to the development of the Haradh gas field is nearing completion. The facilities are needed for operation of a new gas processing plant with a capacity of 16.2 billion m<sup>3</sup> of gas per year and will be handed over to Saudi Aramco during the summer of 2003, as will the LNG compression unit built at Abqaiq.

For the year 2002, order intake from Saudi Arabia represented close to US \$500 million for the Group. Technip-Coflexip is among the top engineering and construction groups working in Saudi Arabia, both in terms of the value of the contracts awarded since the end of 1998 (about US \$1.2 billion) and by the number of projects being carried out, in particular in the area of gas processing and related infrastructure, such as those at Abqaiq, Hawiyah, Haradh, and Qatif.



In September 2002, the Group's activity in Iran was marked by the coming into force of the €330 million contract from Jam Petrochemical Company (an affiliate of NPC) for the design, equipment supply and construction supervision of the ethylene steam cracker for the 10<sup>th</sup> Complex. With a production capacity of 1,345,000 tons per year of ethylene, this plant will apply Technip-Coflexip's in-house technology and processes and will use furnaces designed and produced by the Group. It will be the core unit of the gigantic 10<sup>th</sup> Olefins Complex at Asaluyeh, and will also be both the world's biggest steam cracker and the only large-capacity plant of its type to use both gas and liquids as feedstocks to produce ethylene and propylene.

The €200 million contract signed by Technip-Coflexip with the National Petrochemical Company (NPC) for the design and construction of the steam cracker at the 9<sup>th</sup> Complex, has progressed according to plan since it came in force in December 2001. Detail engineering is now complete and deliveries of materials to Asaluyeh started in October 2002. The steam cracker of the 9<sup>th</sup> Complex is also a large-capacity unit (1,000,000 tons/year) that will implement Technip-Coflexip's proprietary ethylene production technologies. Winning these two major contracts has substantially strengthened the Group's position as a world leader in building mega-crackers and in the related technologies. Equipment deliveries should be completed by July 2003 for the 9<sup>th</sup> Complex and by mid 2004 for the 10<sup>th</sup> Complex. The plants are scheduled to come on stream in the course of 2004 and 2005, respectively.

These two contracts are being financed through multi-source export credit facilities from France, Italy, and the Netherlands, plus Spain for the 10<sup>th</sup> Complex. The financial package was arranged with the help of the Technip-Coflexip financial engineering teams.



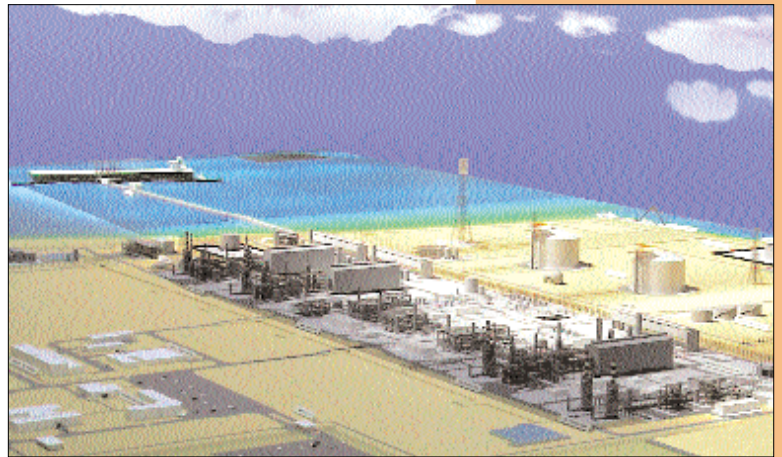
In October 2002, Pars Petrochemical, an affiliate of NPC, awarded Technip-Coflexip its first EPC contract in Iran for the design and construction of a low-density polyethylene plant for the 9<sup>th</sup> Complex at Asaluyeh. In contrast to previous contracts, Technip-Coflexip will be responsible for construction and commissioning of the facility. This downstream unit, using Stamicarbon technology, will have a capacity of 300,000 tons/year. It will use ethylene produced by the steam cracker of the 9<sup>th</sup> Complex as feedstock. Financing of this €100 million project is currently being arranged.

Furthermore, Technip-Coflexip continues work on the contract won in 2000 for the construction of another, 300,000-ton/year linear low-density polyethylene plant at Bandar Imam. The unit is for AKPC and will use BP's Innovene gas-phase technology.

The contracts for the two steam crackers and the polyethylene plant at Asaluyeh were signed and will be executed in collaboration with Nargan, an Iranian engineering company based in Teheran in which Technip-Coflexip took a 20% stake in 2002.

## AFRICA

2002 saw the delivery of the third LNG train for the Bonny Island liquefied natural gas facility in **Nigeria** and a new contract, awarded in March 2002 by Nigeria LNG Ltd (NLNG) for the design and construction of two additional LNG trains for the same complex. Like the projects for trains 1, 2, and 3, the new "NLNGPlus" project, worth US \$1.7 billion, was awarded to TSKJ, a joint venture made up equally of Technip-Coflexip, Snamprogetti, KBR, and JGC. For the new contract, TSKJ will provide engineering, procurement and construction of LNG trains 4 and 5, each with a capacity of four million tons per year, plus the associated offsites and utilities. The new plant, scheduled to start operation in July 2005, will raise overall production capacity to 16.8 million tons per year of LNG. In the



Overall view of the Bonny LNG complex, Nigeria (layout).

framework of the previous contract from NLNG signed in early 2001, TSKJ delivered train 3 "ready for start-up" on November 7, 2002. This 2.95-million-tons/year unit has been in operation since the end of November, that is three months ahead of schedule, and passed the full capacity performance test in January 2003. Delivery of the LPG recovery facilities of one million tons/year and the offsites and utilities, part of the same contract, is scheduled for February 2003.

In May 2002, Petroleum Oil and Gas Corporation of South Africa awarded Technip-Coflexip a contract for the design and construction of a semi-commercial GTL (Gas-to-Liquids) unit at Mossel Bay in the **Republic of South Africa**. With a capacity of 1,000 barrels/day, the unit will use the Statoil process based on Fisher-Tropsch technology for converting gas into liquid hydrocarbons. The contract was initially "reimbursable", but a few months later was converted into a lump sum EPC contract with a value of €26 million. This first GTL project won by the Group will be followed by a huge GTL project in Qatar signed in January 2003.



One of the LNG trains at Bonny, Nigeria.



Turkmenbashi refinery, Turkmenistan.

- Technip-Coflexip was awarded by Alexandria Mineral Oil Company a turnkey contract for an advanced-technology acid gas treatment plant to be built in Alexandria, **Egypt**. With a production capacity of 12 tons of sulfur per day, it will apply THIOPAQ<sup>®</sup>, a new technology developed by the company Pâques and adapted for industrial applications by UOP. THIOPAQ<sup>®</sup> converts acid gas into elementary sulfur via a biological process. Completion of the unit, which will be the first such installation on an industrial scale using the THIOPAQ<sup>®</sup> process, is scheduled for August 2003.



The "Western Gas Libya" project in **Libya** is now in its construction phase. Under this PMC (Project Management Contract), Technip-Coflexip successfully carried out the basic engineering and prepared the calls for tender for the construction contracts. The Group is now responsible for the overall project management as well as the supervision of the detail engineering, procurement, and the construction by the selected companies. These services represent 1.5 million hours for the Group, that is, 400 people at peak activity, and a value estimated at more than € 150 million. The investment for the project by Agip Gas BV, a joint venture between the Libyan national oil company NOC and Agip (ENI group), is estimated at some € 5 billion. It comprises the development of an onshore gas field at Wafa, an offshore gas field at a water depth of 190 meters, a 10-billion-m<sup>3</sup>/year gas processing plant that will be built at Melitah on the coast, subsea flowlines to Melitah (110 km), and onshore pipelines between Wafa and Melitah (550 km). Western Gas Libya is currently the biggest field development project in the Mediterranean basin.



## ■ CENTRAL ASIA

The contract signed in January 2002 with Turkmenneftegas for the design and construction of a diesel hydro-treating plant on the site of the Turkmenbashi refinery in **Turkmenistan** came into force last December. According to the terms of the turnkey contract, worth some €130 million, Technip-Coflexip will carry out engineering, procurement of equipment and materials, construction, and start-up of a hydrotreating unit, a sulfur recovery unit, control systems, utilities, and storage tanks. The new plant will produce 1,500,000 tons/year of hydrotreated diesel with less than 10 ppm of sulfur. Start-up is scheduled for second half 2005. Technip-Coflexip had already participated in the expansion and upgrading program of the refinery, which is located on the Caspian Sea coast, with a catalytic cracker and a lube oils plant, which started production in 2001.





## ASIA

In **Vietnam**, Technip-Coflexip continued work on the turnkey project for the Phu My ammonia/urea complex. Engineering for the project, worth close to US \$400 million, is now practically completed and construction is under way. Delivery of the first utilities is slated for the autumn of 2003. Start-up of the complex, which includes a 1,350-ton/day ammonia plant and a 2,200-ton/year urea plant, is scheduled for 2004.

In May 2002, a BASF/CPC (Sinopec) joint venture awarded Technip-Coflexip a contract for a syngas plant in Nanjing, **China**. Starting 2005, the plant will produce oxo-syngas, carbon monoxide, hydrogen, and steam to be used as feedstocks for various downstream units of the Nanjing petrochemical complex.

A few months later, Technip-Coflexip, in association with Japanese companies Chiyoda Corp. and Mitsubishi Corp., won the contract for the engineering, procurement, and construction of an SM/PO and MPG/Polyols complex at Huizhou, Guangdong Province. This world-scale complex for the CNOOC/Shell Petrochemicals Company (CSPC) joint venture will produce 560,000 tons/year of styrene monomer (SM), 250,000 tons/year of propylene oxide (PO), 135,000 tons/year of polyols, 60,000 tons/year of mono-propylene glycol (MPG), and 320,000 tons/year of mono-ethylene glycol. It will be part of CSPC's Nanhai petrochemical complex, which is one of the largest Sino-foreign joint venture projects in China.

Finally, in February 2003, Shanghai Secco Petrochemical Company (SECCO) awarded Technip-Coflexip a US \$205 million turnkey contract for two linear low-density polyethylene plants, each with a capacity of 300,000 tons/year. They will use BP's Innovene process and be located at Caojing. SECCO is a 50/50 joint venture between Sinopec and BP.

Taking into account the contracts won by the Industries Branch in the chemicals sector, the Group has recorded orders worth close to €400 million in China in a single year. These new contracts reflect a revival of investments in major chemical and petrochemical projects, notably thanks to the opening up of this area to foreign investors. Technip-Coflexip has been working in China for 30 years, particularly in the petrochemical, chemical, and fertilizers

sectors and has designed and built about 100 units on 50 different industrial sites. In the past business year alone, Technip-Coflexip has successfully completed several

major projects: a polyethylene unit at Dushanzi, a polypropylene unit at Yangzi, a urea unit at Zepu, and a PTA plant at Zhuhai, plus several units in the field of the Industries Branch.

The PTA (purified terephthalic acid) plant at Zhuhai started operations mid-January 2003 and reached full production capacity in under 15 days. This 350,000-ton/year single line plant uses BP technology. Technip-Coflexip completed this major project ahead of schedule and below the target price and at the same time achieved safety performance targets that are among the best in the industry. PTA is used to produce polyester fibers.

Backed by its experience and with the support of its affiliate, Technip Tianchen based in Beijing and Shanghai, Technip-Coflexip is especially well placed to contribute to China's strong industrial growth in the years to come.

Construction work for the PTA plant at Taichung, **Taiwan**, should be completed in March 2003. Technip-Coflexip was awarded this turnkey project by CAPCO. The plant, the largest unit of its type worldwide, will be based on BP's process and produce 700,000 tons of PTA a year. ■



The PTA plant in Zhuhai, China.





The Binder Nordic Plant of BASF in Hamina, Finland.

# Fields of activity

## Industries

The Industries Branch (Technip LCI) performed well in 2002, with its backlog and profitability both rising significantly. It renewed its order book in the life sciences sector, mainly in Europe thanks to service contracts with substantial technology content, particularly in the area of pharmaceutical synthesis. While the phosphatic fertilizer business was at the bottom of its cycle, the Branch won major contracts in the other chemicals sectors in Europe and China. It held steady in agro-industries, electricity generation, and buildings. Finally, at the beginning of 2003, in the framework of a 50/50 joint venture, it won a US \$ 600 million turnkey project concerning an aluminum smelter for Pechiney in South Africa. Construction work is to start in 2004.



### ■ LIFE SCIENCES

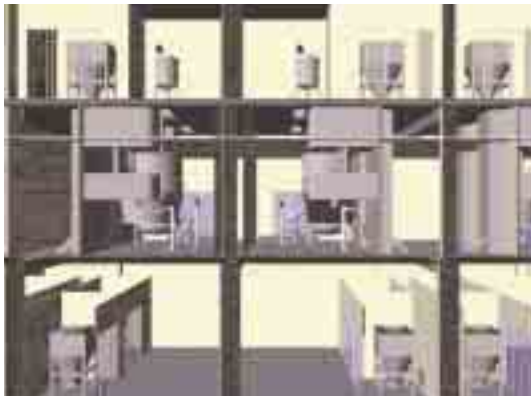
In September 2002, Aventis Pasteur once again showed its confidence in the Group by awarding it a contract for engineering and project management of a biotechnology synthesis unit for the preparation of anti-polio vaccines. It will be built at Marcy l'Etoile in France. This major unit represents a € 65 million investment for Aventis and some 60,000 engineering man-hours for Technip LCI and will be completed in 2005.

Having completed the basic engineering for Aventis Pharma, Technip LCI was awarded the contract for the construction of a chromatographic separation unit in its Vitry-sur-Seine chemical synthesis plant. Work is to be completed in April 2003.

In the area of pharmaceutical production, Solvay awarded Technip LCI an engineering and project management contract for the construction of a finished form pharmaceutical products unit at Châtillon-sur-Chalaronne, near Lyon. Technip LCI had already carried out the basic engineering for the project. This facility, which represents an investment of about €45 million, will be completed in February 2004.



A Patheon's sterile freeze-drying unit, Italy.



Together with Irish engineering company IDC, Technip-Coflexip's LCI Branch also won the contract for the basic engineering and execution of a major expansion to Servier's pharmaceutical formulation and packaging plant at Arklow in **Ireland**. Servier group's synthesis affiliate awarded Technip LCI the basic engineering of its "Oril" project, a pharmaceutical synthesis unit based at Bolbec in Normandy, **France**.



A reactor in the pharmaceutical synthesis unit at Vitry-sur-Seine.

Technip LCI continues work on the contract covering the revamping and expansion of L'Oréal's Caudry plant in France. It has also won the contract for basic engineering of the expansion of L'Oréal's plant in **Germany**.

In the course of 2002, Technip LCI completed several major projects. The quality control laboratory at Mirabel, near Riom in **France** was delivered to the full satisfaction of the client, Merck Sharp & Dohme. For the Janssen group, Technip LCI has executed three projects (crystallization, chromatographic separation, and probe coating) on their sites at Geel and Beerse in **Belgium**. And in **Italy**, it has completed a project for sterile freeze-drying units for Patheon, and is nearing the completion of the revamping of syrup and effervescent units for Abbott, as well as the reinstrumentation of fermentation units for DSM.

Most of these services contracts (basic and detail engineering and project management) have a substantial technology content and are follow-ons of other recent contracts for the same clients, thus demonstrating their confidence in Technip LCI.





One of the buildings of the SNPE plant at Toulouse before/after revamping.

## ■ CHEMICALS

- In a consortium with Asahi Kasei Corp., Technip-Coflexip was awarded by BASF a turnkey contract worth more than € 50 million for the technology conversion of a chlorine plant at Ludwigshafen in **Germany**. The plant is scheduled for completion at the end of 2003.

In **Spain**, Technip-Coflexip is working on two solid-chlorine units for Aragonesas at Sabinianigo. The ATCC unit is now coming on stream, while the DCCNa unit is in the erection phase and should start operations in the third quarter 2003.

In **France**, Technip-Coflexip's LCI branch has completed the project management support contract awarded by SNPE Chimie for the revamping of a number of the buildings at its fine chemicals plant at Toulouse that were damaged by the AZF explosion in September 2001. The plant, which has been made safe following the accident, is now up and running again.

Technip-Coflexip, in consortium with Rintekno Oy, carried out BASF's "Binder Nordic" project for the design and construction of a plant producing a chemical additive for paper pulp at Hamina in Finland. With a capacity of 140,000 tons/year, the plant is BASF's biggest production site in Scandinavia. It represents an investment of some €50 million. Following on from the engineering phase, the construction phase was completed in just 14 months.



In March 2002, Technip-Coflexip was awarded by SABIC a contract for the design and construction of a 30,000-ton/year acetic acid plant at Yanbu in **Saudi Arabia**. The plant will implement a technology based on ethane oxidation developed by SABIC and is scheduled to come on stream in second quarter 2004.

At the end of the year, BASF awarded Technip-Coflexip an engineering and project management contract for the construction of a polytetrahydrofuran (PolyTHF<sup>®</sup>) and tetrahydrofuran (THF) plant in the Caojing industrial park near Shanghai, **China**. With a production capacity of 60,000 tons per year of PolyTHF<sup>®</sup> (the biggest unit in the world) and 80,000 tons a year of THF, this plant will apply the new BASF technology that allows natural gas to be converted directly into THF and then PolyTHF<sup>®</sup>. It will fuel the fast growing Chinese market of spandex fibers, which are synthetic elastic fibers commonly used in the textile industry for sports and open air activities.



The Catalao fertilizers plant, Brazil.

VCM Tianjin Dagu Chemicals Ltd. awarded Technip-Coflexip first the basic engineering and then the detail engineering and project management of the cracking section for the oxychlorination facility of a 200,000-ton/year VCM (vinyl chloride monomer) plant.

The French company Roquette also entrusted Technip LCI with the basic engineering with a view to building a major sorbitol plant in China. This work has now been completed, and the construction phase should soon begin.

In August 2002, Technip-Coflexip obtained the provisional acceptance certificate for the pesticides plant at Hangzhou. It was completed on budget and on schedule and to the satisfaction of the client. The contract, worth around US \$25 million, was awarded by Aventis Crops in 2001 for engineering, equipment supply and construction supervision. The plant is now owned by Bayer.

All these projects in China, plus the projects in progress for Bayer at Caojing (polycarbonate, polyisocyanate and infrastructures for the complex) were carried out by the Group's Industries Branch with substantial support from the local affiliate, Technip Tianchen.

In **Brazil**, Krebs Engenharia, a Group affiliate located at Rio de Janeiro, obtained the provisional acceptance certificate for a phosphatic fertilizer plant built at Catalão. The turnkey contract, worth some US \$100 million, had been awarded by Copebras in January 2001. The facilities include primarily a 1,350-tons/day sulfuric acid unit, a phosphoric acid unit (370 tons/day), a simple superphosphate/triple superphosphate SSP/TSP unit (1,200 tons/day), and a granulation unit. The plant is now in production and performance tests are in progress.

The 350-tons/day nitric acid unit built by Technip-Coflexip for Kemapco at Aqaba in Jordan under a turnkey contract is in operation. Performance tests are scheduled for first quarter 2003.



The pesticides plant at Hangzhou, China.



## INDUSTRIES

### Agro-industries

In January 2002, the company SOGB, of the Bolloré group, entrusted Technip LCI with the design and construction of a palm oil plant at its site at Grand Béribi in **Ivory Coast**. The plant will produce 30,000 tons of crude palm oil and 6,000 tons of palm kernels per year. It will be the seventh palm oil plant of its type built by Technip LCI, based on its own technology.

Sedalcol, part of the Tate-Lyle Amylum group, awarded Technip LCI a turnkey contract for the construction of a 24,000-hectoliter/day ethanol unit using starch by-products as feedstock. It will be built at Nesle in northern **France** and will come on stream in July 2003.

In December 2002, Technip LCI won the turnkey contract for the transfer and rebuilding of the Ryssen distillery at Hesdin in the north of France. Part of the Hesdin plant is to be transferred to the site of the Port of Dunkirk Authority and another part is to be rebuilt at Dunkirk. Work will last roughly 12 months.

Work continues on the construction of a 60,000-hl/year ethanol production unit near Ho Chi Minh City, **Vietnam**. Commissioning is scheduled for the end of the year 2003.



## Metals

- In February 2003, a 50/50 joint venture between Technip-Coflexip and the Bateman group was awarded a US \$ 600 million contract by Pechiney for an aluminum plant at Coega in **South Africa**. The plant will be designed to produce 460,000 tons/year of primary aluminum and will implement Pechiney's latest AP50 technology developments. Technip-Coflexip and Bateman are responsible for detail engineering, procurement of materials and machinery as well as construction. The contract will come into force as soon as financing is finalized. Opening of the site is scheduled for first half 2004, and the plant should reach full production capacity in 2006.



Contract signing ceremony for the aluminium smelter plant of Pechiney in South Africa.

In application of its framework contract with Pechiney, Technip-Coflexip has completed basic engineering for the revamping and optimization of the bauxite and aluminum production plant belonging to Corporation of Guyana at Puerto Ordaz in **Venezuela**. The decision on the turnkey execution of the project should be made during the first half 2003.

In April 2002, Goro Nickel (part of Canadian group Inco) contracted Bechtel/Technip-Coflexip/Hatch (BTH) for engineering, project management, procurement of equipment and equipment as well as construction of a nickel-cobalt production complex at Goro in **New Caledonia**. The complex will produce 54,000 tons/year of nickel and 5,400 tons/year of cobalt. Execution of the "reimbursable-with-cost-target" contract, was suspended by the client in December 2002 to enable him to review the overall economics of the project.

In September 2002, Aubert Duval Holding (Eramet group) placed an order with Technip-Coflexip for engineering and project management for the construction of a new closed-die forging section, including a 40,000 ton capacity press, in its Pamiers plant in **France**.



The power plant of Niederhausen, Germany.

## Electricity

In January 2003, the Group's German affiliate was awarded by RWE Systems AG a lumpsum turnkey contract valued at about € 41 million for the expansion and modernization of two natural gas-fired cogeneration plants located near Bochum and Dortmund in **Germany**. Completion of the works is scheduled for March 2004.

Technip-Coflexip successfully completed the project for engineering, procurement, installation and commissioning of the high-pressure piping system for RWE's new 950-MW lignite-fired power plant at Niederhausen.



In first quarter 2002, Technip-Coflexip successfully completed the turnkey project for the revamping and expansion of the power generation facilities at Abqaiq in **Saudi Arabia**. The works were completed in December 2001, just 21 months after the contract was signed. Construction represented three million man-hours without a single lost time injury (LTI). The plant started up shortly afterwards and was fully on stream by the end of March 2002. The facilities include three gas turbines of 40 MW each and three heat recovery HP steam generators (3 x 80 tons/hour).



The Airbus A380 assembly plant under construction in Toulouse, France.

## Buildings

Technip-Coflexip, as leader in a consortium including Aéroport de Paris Ingénierie (ADPI) and the architectural firm Cardete & Huet, was selected in March 2001 by Airbus France to carry out overall project management of the assembly plant for the Airbus A 380 at Toulouse in **France**. A major milestone was reached on February 17, 2003 with the raising of the metal roof of the assembly hall. It weighs 7,500 tons and measures 250 meters long and 90 meters wide. It was raised to a height of 46 meters using 28 jacks. Six test halls will be constructed in extension of this building. The U-shaped assembly line will be a total of almost 500 meters long on a width of 250 meters surrounding more than 30,000 m<sup>2</sup> of office buildings. It will be finished at the end of 2003 for assembling the first fuselage sections of the A 380 super-jumbo.

Technip TPS, the Group's affiliate specialized in buildings acting as sub-contractor to ADPI, has also started up the design engineering for the Emirate Airlines fleet's new maintenance center at **Dubai**. The fleet will also include the Airbus A 380.

In December 2002, the city of Nice, **France**, approved the launch of the project to develop its Libération Malaussena neighborhood. The corresponding project management contract awarded to a consortium made up of the architect Pierre Louis Faloci and Technip TPS came into force in January 2003 as a result. The awarding of this contract followed an international call for tenders issued by the city in 2001. The project includes the new city hall and several local administrative buildings in the neighborhood of the former Provence Railroad station. It covers the creation of a cultural and sports park, an underground car park and the remodeling of the gardens. The investment for the project, for which the Faloci/Technip TPS will take over project management, is in the order of € 130 million. It will start up in January 2003, with delivery spread between 2005 and 2007.



Zenith of Rouen (France) - Architect B. TSHUMI.



The residential area designed and built by Technip-Coflexip at Bonny, Nigeria.

# Technip-Coflexip worldwide

## Main operational bases







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Edited by Technip-Coflexip's  
External Communication Department

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