

April 2006

# Connexus Consulting

 *Qualifications*

# Connexus Consulting

■ ■ ■ ■ *Overview, team and clients*

# Connexus has been operating in the region since 2000 and has so far expanded its coverage to eleven countries



## Connexus Consulting Profile

Connexus is a consulting firm established in Lebanon in 2000 and specializing in economic regulation and privatization, with particular focus on network industries, especially telecommunications, transport (civil aviation, maritime, and rail transport), and electricity. Connexus provides consulting services in the following areas of expertise:

- ❑ Strategy and regulation for service providers and investors
- ❑ Policy and strategy for policy-makers and regulatory authorities
- ❑ Economic regulation of network industries : licenses, contracts, prices, interconnection, competition, and other regulatory matters
- ❑ Preparation of tender documents for private participation in infrastructure
- ❑ Dispute resolution
- ❑ Litigation support

Connexus Consulting has conducted projects in Morocco, Algeria, Egypt, Lebanon, Jordan, Saudi Arabia, Bahrain, Qatar, the United Arab Emirates, Turkey and Afghanistan

## Connexus Regional Coverage



# The Connexus Consulting Team



## Managing Director:

- ❑ Kamal Shehadi, PhD
  - BA (Harvard University), PhD (Columbia University)
  - Extensive experience in regulation and privatization: consulted for regulatory authorities in Saudi Arabia, Morocco, Algeria, Jordan, and Lebanon, the World Bank, and companies and investors in Saudi Arabia, the United Arab Emirates, Egypt, Bahrain, Lebanon, Jordan, Algeria and Afghanistan

## Consultants (in alphabetical order):

- ❑ Louay Abou Chanab – over 7 years' experience in telecommunications and 10 years in marketing and management
- ❑ Hana Adib Habayeb – over 2 years' experience in information technology and telecommunications policy
- ❑ Maroulla Haddad – one year experience in telecommunications

## Affiliated Consultants (in alphabetical order): Affiliated consultants have worked with Connexus Consulting on various projects over the last five years

- ❑ Claudia Abou Rizk Sadaka – over 10 years' experience in telecommunications and consulting
- ❑ George Azar – over 10 years' experience in finance
- ❑ Hisham Kassab, PhD – over 10 years' experience in telecommunications and information technology

# Connexus Consulting's List of Clients



## Ministries, regulators and international organizations

- Communications & Information Technology Commission – Saudi Arabia
- Agence Nationale de Regulation des Telecommunications (ANRT, Moroccan Telecom Regulator) – Morocco
- Presidency of Civil Aviation – Saudi Arabia
- Ministry of Information and Communication Technologies – Jordan
- World Bank/European Commission Programme on Private Participation in Mediterranean Infrastructure
- Global Information & Communication Technology Department – The World Bank
- Government of a Gulf Emirate
- Port of Beirut – Lebanon
- Ministry of Post and Telecommunications – Algeria
- Ministry of Telecommunications – Lebanon
- Ministry of Transport – Lebanon

## Corporations and investors

- Emirates Telecommunications Corporation (Etisalat) – UAE
- Saudi Telecom Company (STC) – Saudi Arabia
- Telecom Egypt – Egypt
- Mobily – Saudi Arabia
- Orascom Telecom Holding (OTH) – Egypt
- MTC Vodafone – Bahrain
- Amwaj Telecom – Bahrain
- Consortia of investors bidding for mobile or data licenses
- International Tobacco Company
- Booz Allen Hamilton, Middle East
- Ovum (UK)

# Telecommunications clients includes regulatory authorities, leading telecommunications service providers and policy makers in the region



## Connexus Consulting Sample of Telecommunications Clients



Saudi Telecommunications Company (STC)



Ministry of Post and Telecommunication - Algeria



Telecom Egypt



MTC Vodafone - Bahrain



Communications & Information Technology Commission (CITC) - Saudi Arabia



Agence Nationale de Regulation des Telecommunications (ANRT) - Morocco



Emirates Telecommunications Corporation



THE WORLD BANK

The World Bank - Global Information & Communication Technology Department



Ministry of Information and Communication Technologies - Jordan



Orascom Telecom Holding (OTH) - Egypt



Ministry of Telecommunication - Lebanon



Mobily - Saudi Arabia

# Connexus Projects

■ ■ ■ ■ *Telecommunications*

# Advising a regional telecommunications service provider on its bid for Egypt's third mobile license and conducting a regulatory due diligence



Year

2000

2001

2002

2003

2004

2005

2006

## Situation

- The Egyptian National Telecommunications Regulatory Authority announced an auction for a third mobile license in early 2006
- A leading regional operator was interested in bidding for the license and required assistance in assessing the regulatory environment and valuating the license

## Key Issues

- New mobile entrant to a market with two well established operators
- Complex bid requirements
- Limited information available on the market
- Developing regulatory framework

## Connexus Contribution

- Identified and evaluated relevant regulatory levers and their impact on network rollout and the new entrant's profitability
- Evaluated telecommunication and competition laws and regulations and compared to international best practices
- Evaluated existing licenses and telecommunication agreements and their impact on the new entrant
- Identified critical regulatory levers and areas where bidder may influence policy through lobbying for more favorable regulations

## Results

- Project is ongoing

# Assessing regional regulatory readiness for mobile television in the Middle East and North Africa region on behalf of a financial investor



Year

2000

2001

2002

2003

2004

2005

2006

## Situation

- A financial investor interested in pursuing satellite to mobile TV opportunities in the Arab world
- Connexus Consulting was contracted by Booz Allen Hamilton to assess the regulatory readiness and develop a position paper for telecom regulators on the issue , introducing Mobile TV and regulatory requirements for its launch

## Key Issues

- New technology with limited precedence internationally
- Limited available information on media regulation in the Arab world
- Poorly developed regulatory frameworks for media regulation
- Various possible business models each with a different set of regulatory challenges

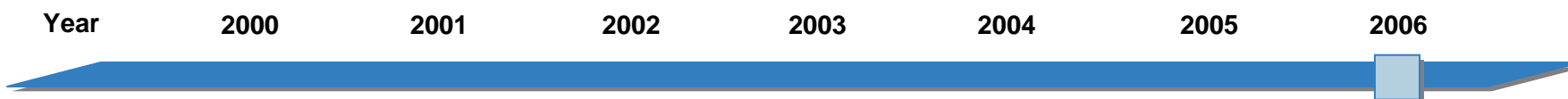
## Connexus Contribution

- Identified critical regulatory levers for the successful launch of mobile TV
- Reviewed international regulatory best practice as related to telecommunications, media and mobile TV
- Reviewed media regulations in several key Arab countries
- Reviewed telecommunications regulations in key Arab countries
- Assessed regulatory readiness for the launch of mobile TV
- Proposed next steps to be taken by regulators in key Arab countries in order to prepare for the launch of mobile TV

## Results

- Project is ongoing

# Advising the Saudi Ministry of Culture and Information –MOCI- on broadcast media liberalization strategy and regulatory reform



## Situation

- MOCI plans to restructure and reform the regulatory framework of Saudi Arabia's radio and TV sector
- Connexus Consulting was contracted by Booz Allen Hamilton to develop a policy paper on Saudi Arabia's broadcast media liberalization and regulatory reform

## Key Issues

Multiple requirements were identified to complete the policy paper:

- Regulatory due diligence, in particular regarding media regulation
- Benchmarking to compare to international best practices
- Analysis of various regulatory frameworks

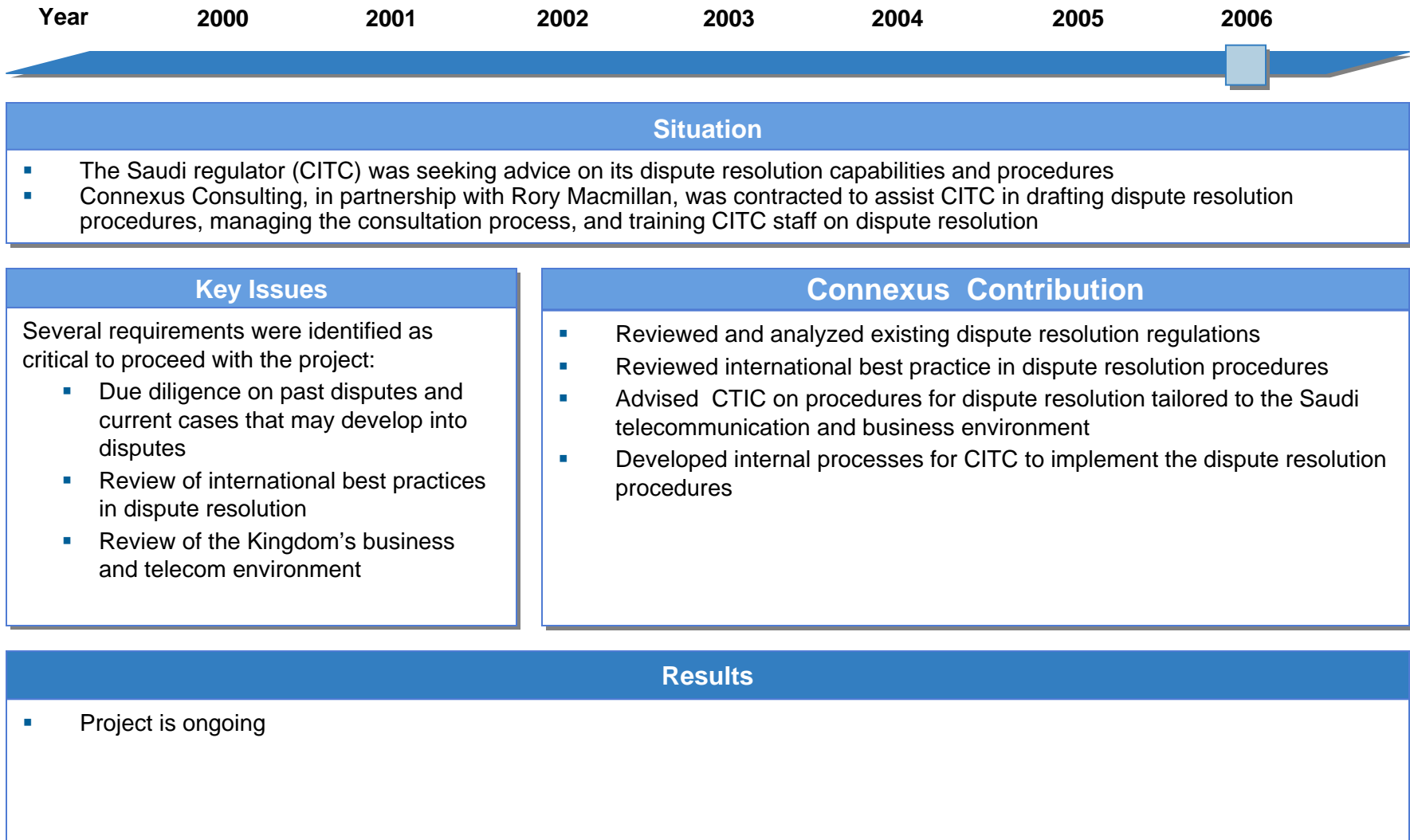
## Connexus Contribution

- Reviewed and analyzed existing audio-visual regulatory frameworks
- Reviewed regional and international audio-visual regulatory practice
- Assessed various deregulation scenarios and outlined the optimal regulatory framework
- Advised Booz Allen Hamilton on the implications of various regulatory scenarios
- Drafted the policy paper submitted to the Ministry of Information and Culture on the liberalization of its audio-visual regulatory environment

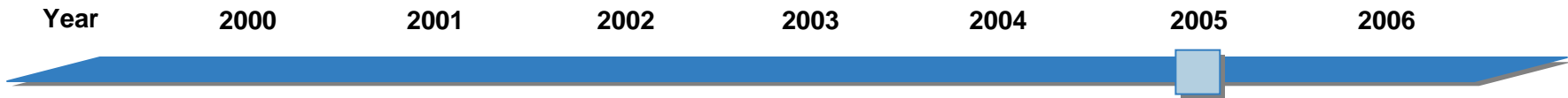
## Results

- Project is ongoing

# Advising the Saudi telecommunications regulator on dispute resolution procedures, internal dispute resolution processes, and training in dispute resolution



# Conducting technical and commercial due diligence and advisory in relation to a telecommunications incumbent bid for the acquisition of Telsim's assets



## Situation

- The Turkish Government announced plans to sell Telsim's assets through an auction in early 2005
- One of the region's largest telecom service providers was interested in entering the Turkish market and bidding for Telsim's assets and required assistance in assessing Telsim's assets

## Key Issues

- Multiple requirements were identified to complete the due diligence:
- Commercial due diligence with proper growth forecasts
  - Regulatory due diligence, in particular regarding the transfer process and competition issues
  - Current and future Opex and Capex
  - Identification and quantification of commercial value drivers

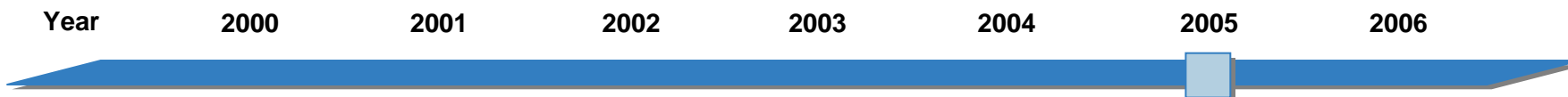
## Connexus Contribution

- Reviewed and analyzed available documentation in the bid data-room
- Reviewed benchmarks to complement the commercial due diligence efforts
- Participated in building a business model with forecasts for the Turkish telecommunications market
- Advised on the regulatory environment in Turkey and provided strategic input to the due diligence accordingly
- Provided continuous support to the bidder's financial advisors
- Connexus Consulting bid jointly -and carried out the project in partnership- with Ovum (UK)

## Results

- The assessment was completed successfully and the bid was presented on schedule

# Advising the Saudi regulator in its strategy for the liberalization of the Saudi telecommunications market



## Situation

- The Saudi regulator (CITC) recently licensed one mobile operator and two data service providers and wished to further liberalize the telecom market, including fixed services, and requested advice on how best to do so

## Key Issues

- Possible WTO commitments to fully liberalize in 2006
- Recently licensed but untested operators in the data sector
- Regulatory framework requires enhancement to accommodate the liberalization of fixed services
- Objective to improve the IT sector in the context of very scarce info on the Saudi IT market

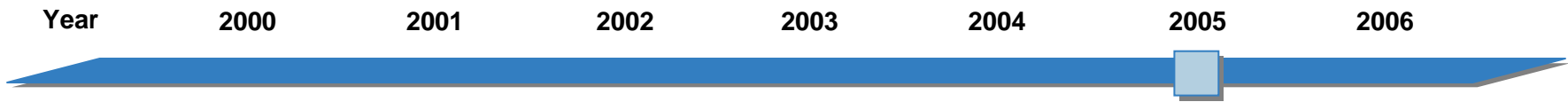
## Connexus Contribution

- Reviewed and assessed the current regulatory framework and identified requirements for the liberalization of the fixed services market
- Reviewed different liberalization options and provided CITC with the best course of action
- Built a financial model to assess the impact of different liberalization scenarios
- Reviewed potential investment opportunities in the IT sector and the optimal strategy to attract the investment
- Integrated results from a residential and corporate market survey into the analysis and strategy

## Results

- Recommendations were adopted by CITC management in September 2005
- Work performed by Connexus Consulting was highly praised by CITC

# Advising a regional telecom incumbent in North Africa on its licensing strategy



## Situation

- Telecom Law provisioned that the incumbent be granted a license prior to scheduled privatization at end-2005
- Regulator announced opening up international and mobile telecommunications market in 2006
- Incumbent sought guidance to review draft license issued and negotiate with ministry and regulatory authority

## Key Issues

- Uncertainty over new market environment
- Loss of monopoly status
- Threat of revenue depletion

## Connexus Contribution

- Reviewed the draft license in light of local regulations and international experience
- Identified the threats and opportunities in the regulatory environment
- Drafted new license
- Advised Booz Allen Hamilton on the financial implications of various regulatory issues and contributed to the building of financial model to simulate various regulatory scenarios

## Results

- Incumbent management adopted the recommendations produced by Connexus Consulting

# Assessing Lebanon's failed mobile privatization



Year

2000

2001

2002

2003

2004

2005

2006

## Situation

- Successive attempts to privatize the Lebanese mobile segment failed to achieve desired results
- Mobile sector locked in disputes that slowed progress
- Mobile sector performance lagged behind other markets in terms of service and price offerings

## Key Issues

- Bad decisions
- Mismanagement
- Loss of investor confidence

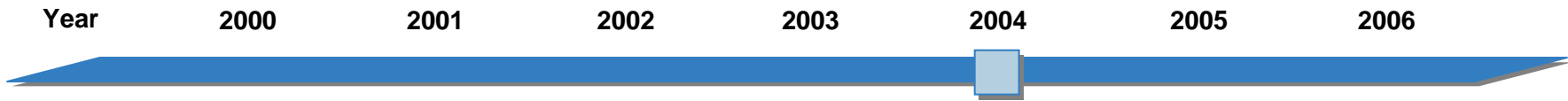
## Connexus Contribution

- Reviewed the history of the sector
- Analyzed the sector vis-à-vis benchmarks
- Performed regulatory and process due diligence
- Financially simulated the different scenarios for the sector and argued that the privatization and liberalization of the mobile market would have generated far more revenues to the Lebanese treasury than the management contract in the medium term

## Results

- Quantified the cost of the bad decisions that have beset the mobile sector since 1998, most notably the decision to terminate the BOT contracts and the subsequent decisions not to privatize and liberalize but to resort to a management contract
- Systematically compared the financial and economic impact of various policy options
- Recommended a high level roadmap for the way forward

# Advising a regional telecom incumbent in the Gulf on its regulatory strategy (I)



## Situation

- Telecom Law amended to terminate the exclusivity of the incumbent and establish a regulatory authority
- Incumbent sought assistance in preparing for a deregulated and competitive environment

## Key Issues

- Uncertainty over new regulatory environment
- Quantification of financial impact of liberalization and regulation
- New institutional framework
- Lack of experience in management of key regulatory levers (interconnection, etc.)

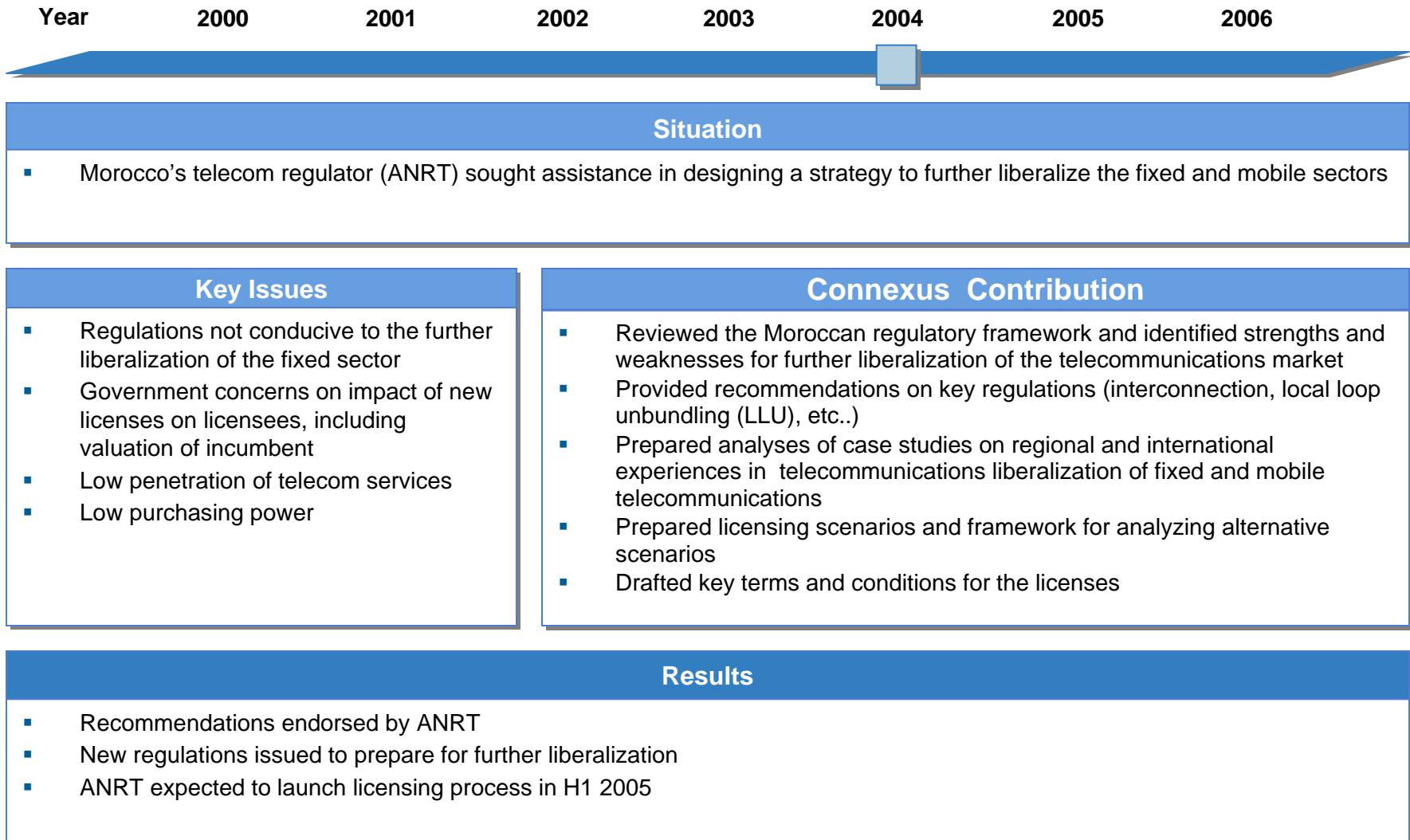
## Connexus Contribution

- Advised on the impact of the new regulatory environment
- Advised on the impact of liberalization and competition
- Advised on the new institutional framework
- Drafted advisory papers on: Interconnection, Mobile Number Portability, Accounting Separation, Competition Regulation, Price Regulation, National Roaming

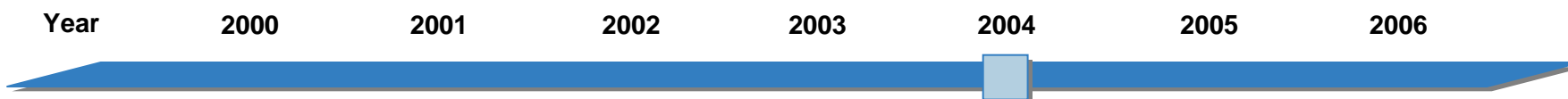
## Results

- Developed incumbent understanding of regulatory issues and capacity
- Put incumbent on track to be ready for competition

# Advising the Moroccan Telecom Regulator (ANRT) on its strategy for liberalizing fixed and mobile telecom



# Assisting a regional operator in bidding for an International and Long Distance (ILD) Network license in Algeria



## Situation

- A regional telecom operator wanted to bid for the license to establish and operate an international and long distance network in Algeria

## Key Issues

- Unfavorable and vague regulatory framework
- Incumbent tariffs not reflective of costs
- Onerous roll-out requirements
- Uncertainty over last mile access to client

## Connexus Contribution

- Coordinated the preparation of bid documents
- Advised on regulatory strategy
- Reviewed the business model prepared by the consortium
- Advised on the partnership agreement between consortium members
- Reviewed and advised on license terms and conditions
- Prepared presentations to the telecommunications regulatory authority in Algeria (ARPT)

## Results

- Completed bid documents in very short timeframe
- Identified number of significant risks, which led bidder not to submit bid. No other bids were received
- The Algerian telecom regulator (ARPT) has amended the license conditions, taking into account consultant's comments and licensing process has been re-launched

# Responding to a consultation on Carrier Pre-Selection and advising on regulatory strategy for a telecom operator in Bahrain



Year

2000

2001

2002

2003

2004

2005

2006

## Situation

- Telecom regulatory authority issued a consultation on Carrier Pre-Selection (CPS), which could have significant impact on new entrant

## Key Issues

- New mobile entrant, with plans to expand range of telecom services
- Problems raised by CPS for network operators' ability to recover investments

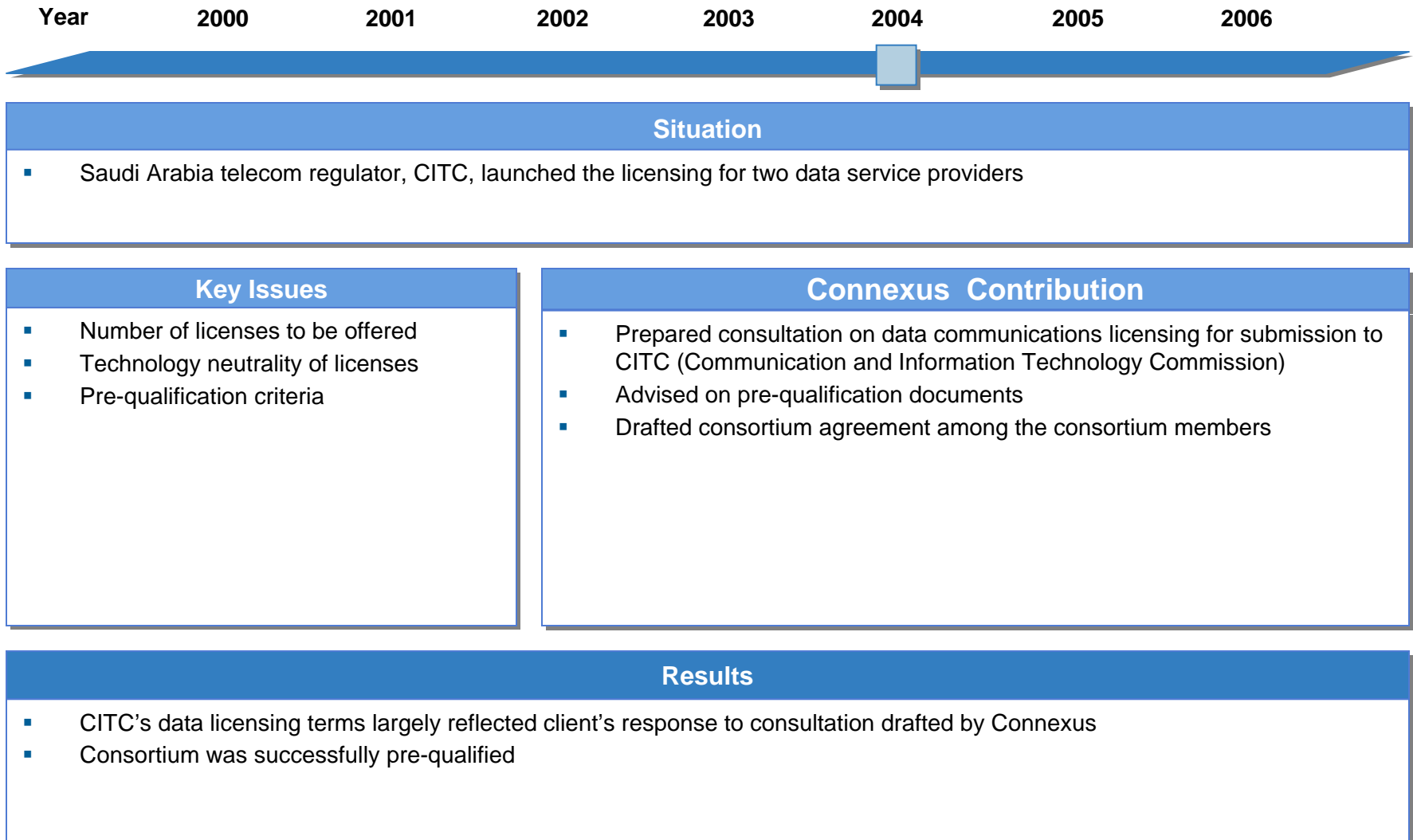
## Connexus Contribution

- Advised on regulatory strategy
- Advised telecom operator on the potential impact of CPS
- Prepared two rounds of consultation on CPS, with benchmarks and supporting evidence

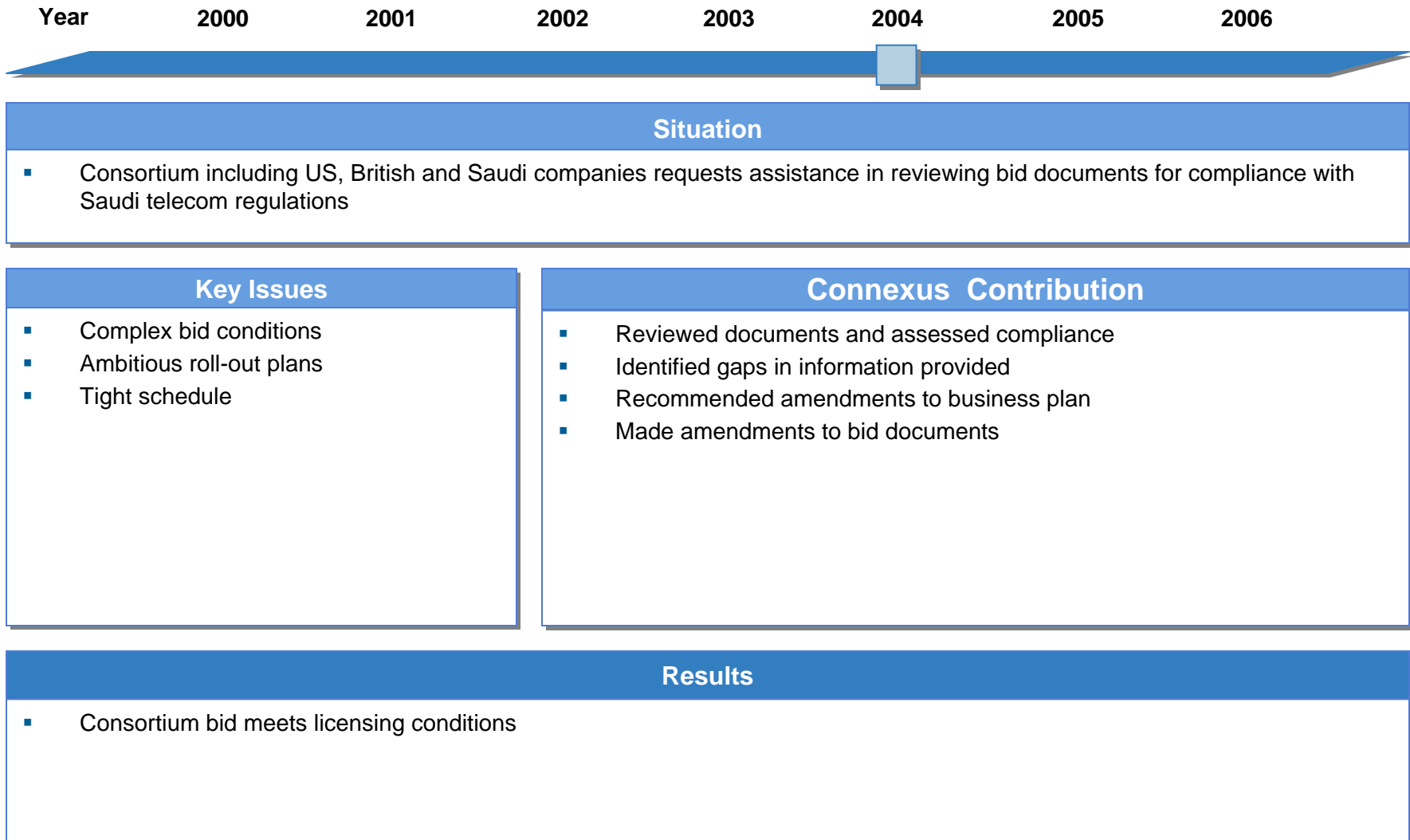
## Results

- Regulator adopted response to consultation and drafted regulation favorable to client

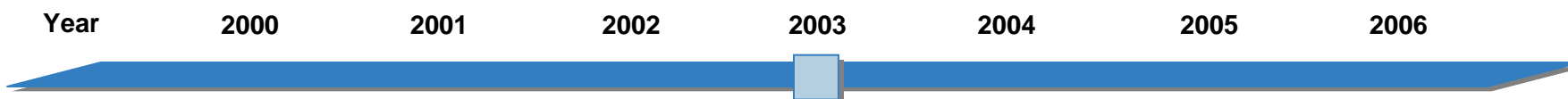
# Advising an international consortium on data licensing in Saudi Arabia (I)



# Advising an international consortium on data licensing in Saudi Arabia (II)



# Advising a regional telecom incumbent in the Gulf on the formulation of its regulatory strategy (II)



## Situation

- New regulatory framework adopted, incumbent being readied for privatization, and licensing of competitors underway

## Key Issues

- Understanding financial and regulatory impact of liberalization and competition
- Concern over regulatory risk
- Lack of experience in management of key regulatory levers (interconnection, etc.)
- Absence of regulatory affairs department and processes within incumbent

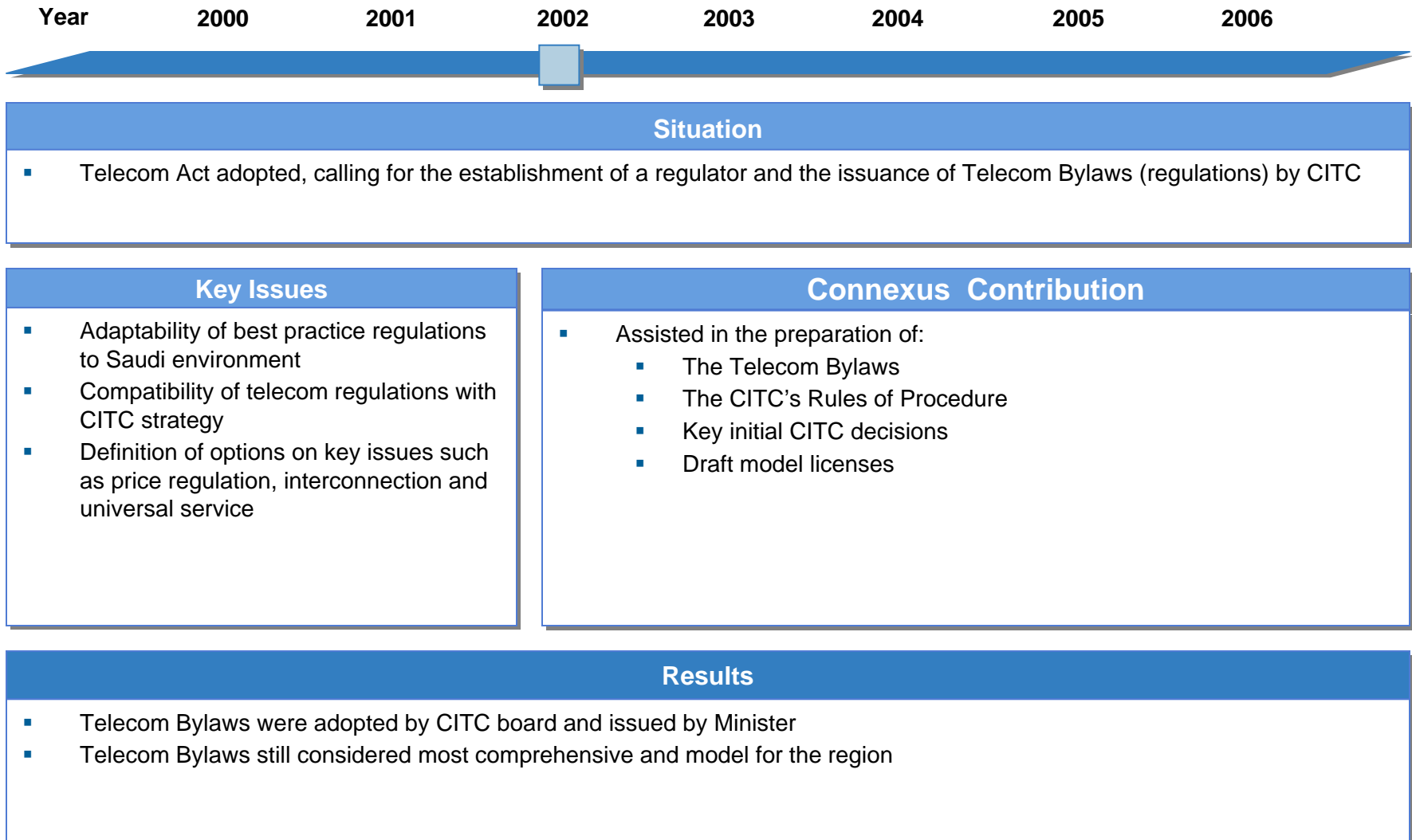
## Connexus Contribution

- Assessed the financial and regulatory impact of various regulatory scenarios on incumbent
- Provided documentation and international benchmarks to support the incumbent's negotiations with the regulator
- Advised on the organization of the Regulatory Affairs department and regulatory processes
- Advised on telecom legal and regulatory issues generally
- Drafted advisory papers on: license strategy and related matters, price regulation, interconnection, universal service, and other regulatory issues

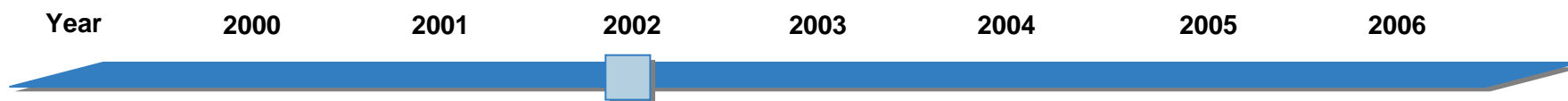
## Results

- Developed regulatory function (organization, process and skills) of incumbent and raised awareness of regulatory challenges and competition
- Contributed to shaping new regulations, in particular on interconnection and price regulation

# Assisting in the drafting of the telecom regulatory framework in Saudi Arabia



# Assisting the Jordanian Ministry of Information and Communications Technology on its strategy for the liberalization of mobile telecommunications



## Situation

- The Ministry of Information and Communication Technologies in Jordan received funding from the US Trade Development Agency for a study on the feasibility of a third mobile license and the liberalization of mobile telecommunications

## Key Issues

- Concern over ability of Jordanian telecom market to sustain a third mobile service provider
- Ability of providing level playing field for all mobile service providers
- Concern of treasury officials on the impact of a third mobile license on the valuation of existing operators
- Impact of issuing 3G licenses to existing mobile service providers

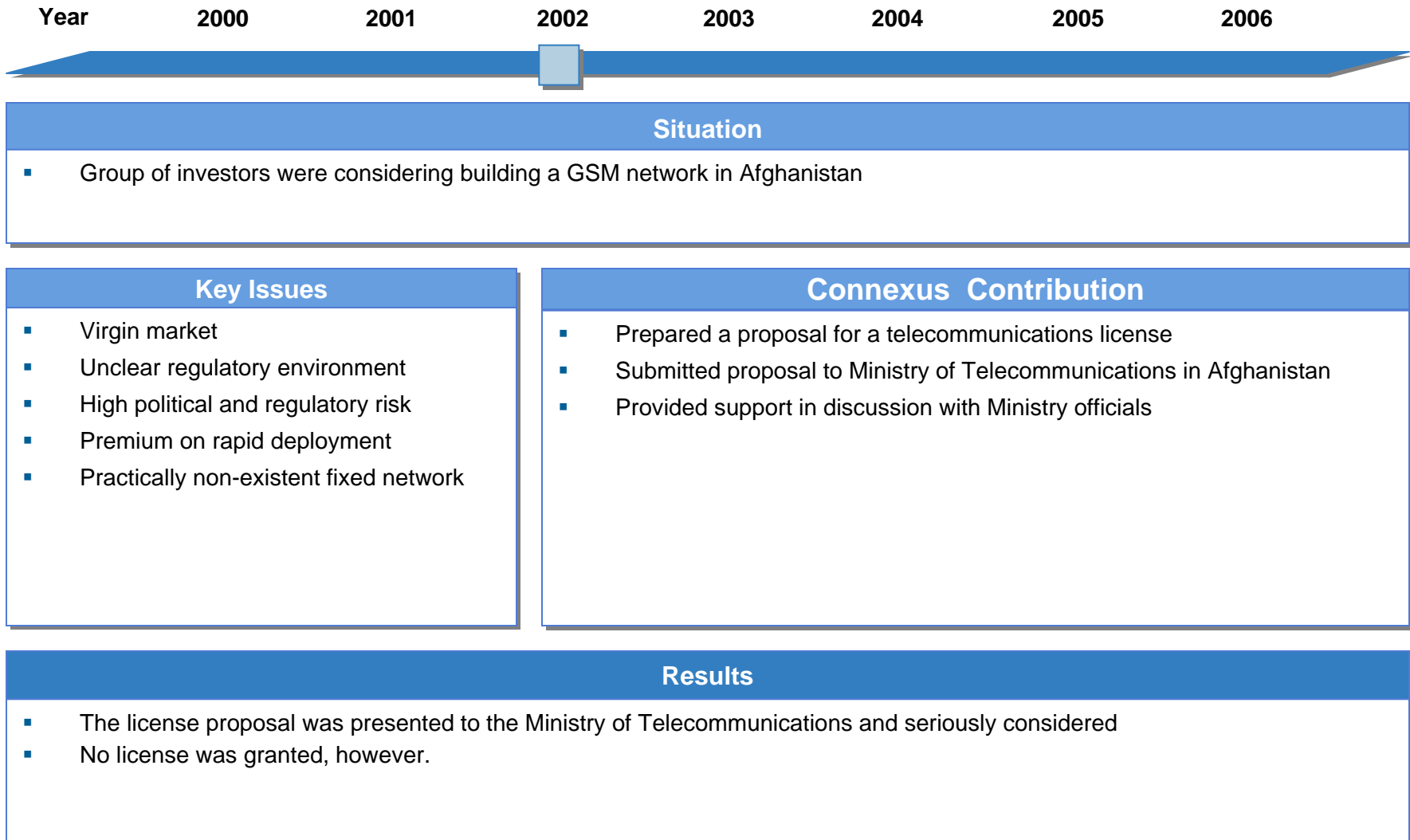
## Connexus Contribution

- Provided analysis on whether the market could sustain a third mobile service provider, with benchmarks
- Assessed the Jordanian regulatory framework, and recommended changes to facilitate the entry of a third mobile operator
- Provided regulatory and strategic advice on how to provide a level playing field for a potential third operator
- Analyzed the fiscal impact of the third license on the long-term revenues to the Jordanian treasury

## Results

- Produced policy recommendations to award a technologically neutral third mobile license
- Recommendations were endorsed by the Ministry and the Government in 2002
- Third mobile license awarded successfully in 2004

# Preparing strategy and a proposal for a GSM mobile network in Afghanistan



# Reviewing the telecommunications sectors in the Middle East and North Africa region



Year

2000

2001

2002

2003

2004

2005

2006

## Situation

- The World Bank was interested in assessing competition in the telecommunication sectors of selected countries in the Middle East and North Africa Region and reviewing telecommunications tariffs in these countries

## Key Issues

- Limited availability of information
- Unclear regulations
- Discrepancy between stated policies and practice

## Connexus Contribution

- Conducted a survey of telecommunications in the Middle East and North Africa
- Provided assessment of competition and liberalization for each country in the region
- Conducted a survey and comparison of telecommunications tariffs
- Reviewed regulatory reform in selected countries, including the legal and institutional features of telecommunications regulation

## Results

- Survey and analysis results integrated into World Bank publication on the telecommunications sector in the Middle East and North Africa

# Preparing enabling decrees and commenting on GSM licenses for the Ministry of Telecommunications in Lebanon



Year

2000

2001

2002

2003

2004

2005

2006

## Situation

- Telecom law issued, calling for liberalizing the sector, creating an independent regulator and corporatizing the incumbent operator, but decrees needed to implement law
- Licensing of new mobile operator subject to political tug-of-war.

## Key Issues

- Unclear policy environment
- Adaptability of best practice regulations to Lebanese environment
- Ease of implementation of decrees

## Connexus Contribution

- Prepared nine decrees in Arabic and English:
  - Decrees providing for the establishment and organization of the Telecom Regulatory Authority of Lebanon
  - Decrees providing for the corporatization of the Ministry and the telecom incumbent OGERO into a public shareholding company (Liban Telecom), and the transfer of assets from the Ministry and OGERO to the company
  - Decrees pertaining to the licensing of telecom operators and access to public property
- Produced an extensive written assessment of the two GSM licenses, and assessing their compatibility with the Telecom Law, the announced telecom policy of the Government and international best practice
- Convinced the government to amend the GSM draft licenses based on the above mentioned assessment

## Results

- Decrees were adopted by the Ministry of Telecommunications and presented to the Council of Ministers
- The GSM licenses were amended to take into account the comments made

# Advising the Lebanese Ministry of Telecommunications on telecommunications regulatory reform



Year

2000

2001

2002

2003

2004

2005

2006

## Situation

- The Lebanese government was considering the reform, liberalization, and privatization of the telecommunications sector

## Key Issues

- Absence of guidance on policy issues
- Uncertainty over government commitment to liberalization
- Opposition from vested interests to liberalization

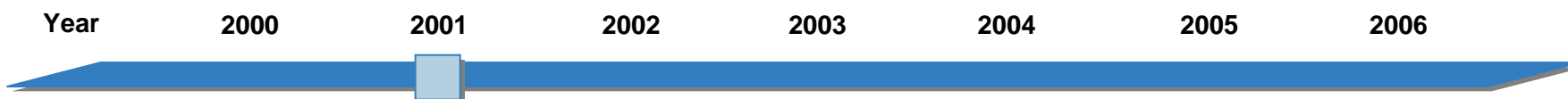
## Connexus Contribution

- Drafted policy and strategy for telecom privatization and liberalization in Lebanon (first draft in 1999; second draft in 2001)
- Co-chaired the drafting of telecom legislation to de-regulate the sector (February 1999 - February 2001)
- Consulted for the World Bank Privatization Support Project ( March 2000- June 2001)
- Drafted the start-up budget of the telecom regulatory authority
- Identified main regulatory issues to be addressed by the telecom regulatory authority in the first year of operation
- Drafted Terms of Reference for an EC-grant funded technical assistance to the telecom regulatory authority (€ 3.5 million)

## Results

- Law was adopted by Parliament
- Policy statement was adopted by Ministry of Telecom and Council of Ministers, and included in the Information Memorandum of the mobile license and networks' auction two years later
- Technical assistance on telecom regulation was provided by the European Commission

# Conducting a feasibility study for a €20 million assistance package for regulatory authorities and privatization in Jordan



## Situation

- EC decides to grant €20 million in technical assistance to strengthen and develop infrastructure regulation in Jordan, including telecom and post, and to support privatization

## Key Issues

- Strengthened Telecom Regulatory Commission (TRC) through new law issued in 2002
- Limited TRC capacity

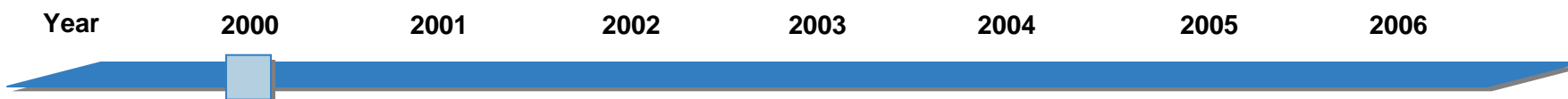
## Connexus Contribution

- Prepared feasibility report (drafted identification and appraisal reports, project design, and budget) for the World Bank - European Commission Joint Program for an EC grant assistance of €20 million to promote private participation in infrastructure and strengthen regulatory authorities in Jordan for 2002 - 2006
- Designed the technical assistance program including program management, coordination and sustainability measures
- Identified technical assistance and training needs of the Telecommunications Regulatory Commission in Jordan and drafted terms of reference for a €3.5 million project
- Drafted Terms of Reference for the Executive Privatization Commission, the Electricity Regulatory Commission, and the Civil Aviation Authority

## Results

- €3.5 million funding for technical assistance was awarded to support TRC
- €16.5 million was awarded to support other regulatory authorities and privatization

# Conducting a feasibility study for a €17 million assistance package for telecom liberalization and regulation and development of Information Society in Algeria



## Situation

- The European Commission Programme on Private Participation in Mediterranean Infrastructure was implementing a €17 million technical assistance project for Algeria

## Key Issues

- Sector in very early stages of reform
- Undeveloped regulatory environment

## Connexus Contribution

- Identified technical assistance needs of the post and telecommunications regulatory authority (ARPT)
- Identified technical assistance needs for the restructuring of the Ministry of Post and Telecommunications
- Identified technical assistance needs for the launching of an “information society” initiative in Algeria
- Drafted terms of reference for assistance to the telecom and postal regulator

## Results

- Mobilized European Commission grant assistance of €17 million to promote the reform of telecommunications and post and the development of the information society in Algeria for 2002 - 2006

# Assisting the Algerian Ministry of Post and Telecommunications in the liberalization of the telecommunications sector



Year

2000

2001

2002

2003

2004

2005

2006

## Situation

- The Ministry of Post and Telecommunications in Algeria decided to liberalize the sector and needed to develop strategy and timetable as well as draft new law

## Key Issues

- Need to get support from President on policy
- Policy needed to unblock World Bank loan to support telecom

## Connexus Contribution

- Drafted a report on the strategy for the liberalization of the telecommunications sector and privatization of the state-owned telecommunications operator for the ministry
- Drafted guidelines for regulatory reform of the telecommunications sector including an outline of WTO telecommunications commitments
- Participated in the review and preparation of the telecommunications law
- Lobbied for support for the reforms among the ministry's senior managers

## Results

- The drafted report was adopted by the Algerian government and served as the basis for launching the tender for the second GSM license as well as subsequent licensing

# Connexus Projects

■ ■ ■ ■ *Privatization*

# Advising the Government of a Gulf Emirate on privatization strategy and institutional implementation



Year

2000

2001

2002

2003

2004

2005

2006

## Situation

- A Gulf Emirate decided to privatize public assets and to do so it required to consolidate a policy and build a strategy to ensure success

## Key Issues

- Gulf Emirate under pressure from private sector and international trading partners to privatize
- Gulf Emirate's public finances required expansion of tax base

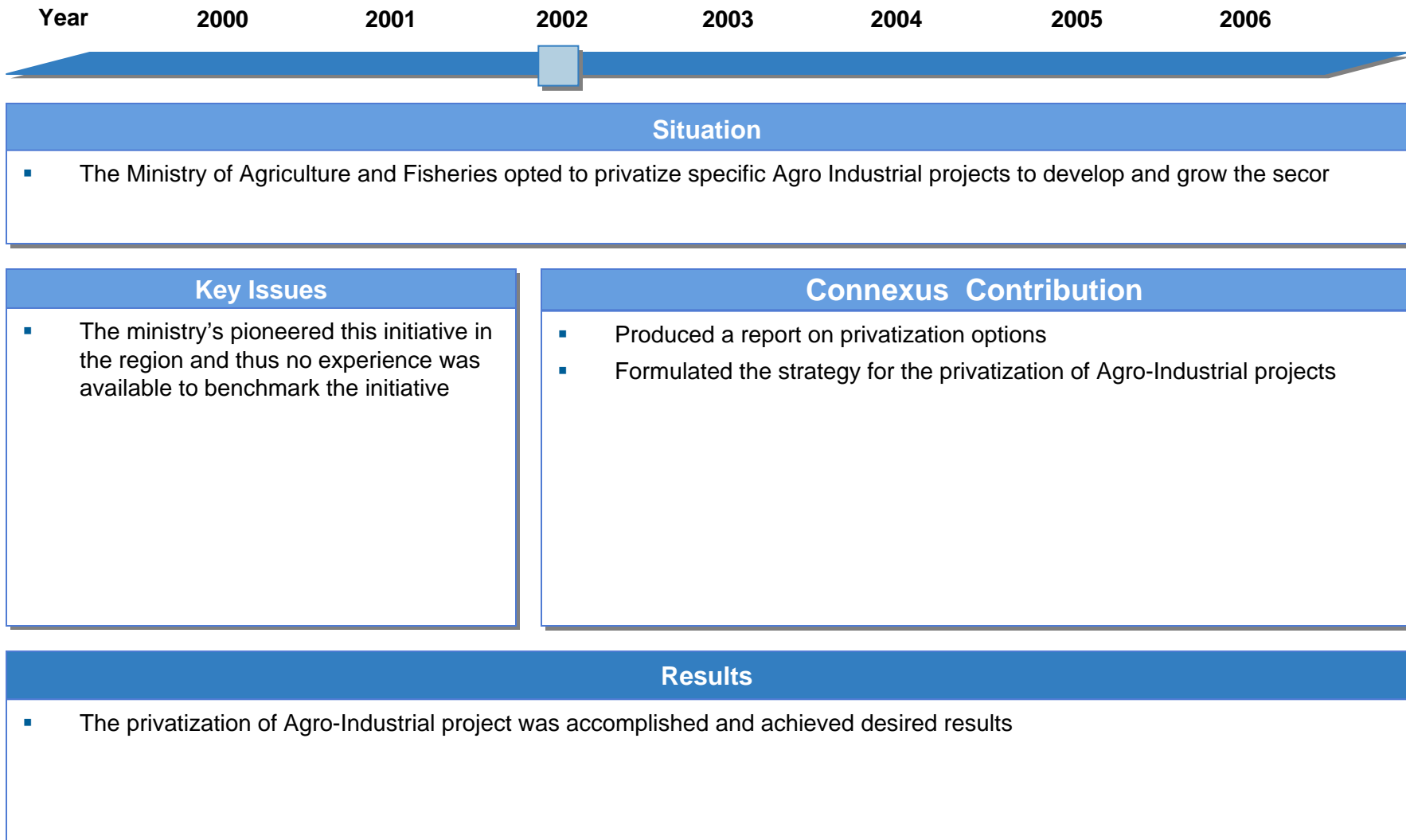
## Connexus Contribution

- Drafted emirate's privatization policy and strategy
- Advised on the institutional structure of privatization
- Assessed the economic case for privatization

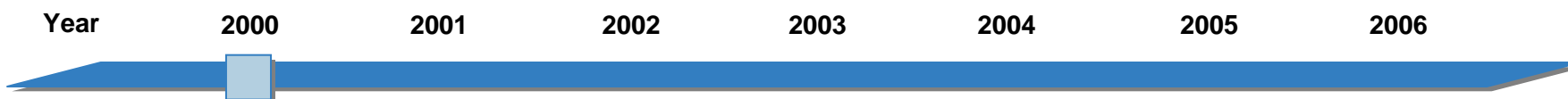
## Results

- The Emirate initiated a successful privatization program

# Advising the UAE Ministry of Agriculture and Fisheries on the privatization of Agro-Industrial projects



# Providing ongoing support to the World Bank's Privatization Support Program in Mediterranean countries



## Situation

- The World Bank and the European Commission engaged in a program to support privatization in Mediterranean countries and required regional experience in the deployment of the program

## Key Issues

- No data or plans available on how to best invest donated funds in receiver countries
- No assessment on the need of every sector

## Connexus Contribution

- Advised on privatization in Lebanon
- Advised on EC-funded support for transport and telecommunications sector reform and regulation in Lebanon
- Advised on (EC projects in) transport, telecommunications, and energy regulation in Jordan
- Advised on EC projects in telecommunications, post, and information technology in Algeria

## Results

- Designed a European Community-funded project to support the Government of Lebanon's privatization program and other countries

# Advising the Government of Lebanon on privatization (Ministry of Economy and Trade)



Year

2000

2001

2002

2003

2004

2005

2006

## Situation

- The Government of Lebanon decided to initiate a comprehensive privatization program and lacked all legal and institutional framework to do that

## Connexus Contribution

- Drafted “Government of Lebanon’s Policy on Privatization and Private Participation in Infrastructure” which included a strategy for privatization. Document adopted by the Council of Ministers in July 2000
- Drafting of the privatization law (voted into law in June 2000)
- Reviewed potential candidates for privatization and identified challenges facing privatization of each sector or company
- Participated in the drafting of various sector laws to set up the appropriate regulatory framework for privatization of telecommunications, electricity, and water
- Designed and drafted Terms of Reference for a technical privatization unit
- Advised the Minister of Post and Telecommunications (MPT) on telecommunications sector privatization and liberalization
- Headed the drafting of a telecommunications policy and outline of regulatory framework
- Supervised the work of consultants preparing the telecommunications operator’s opening balance sheet
- Drafted terms of reference for and supervised the work of consultants to study Middle East Airlines and recommend privatization strategy and pre-privatization restructuring.
- Prepared recommendations to the Minister of Transport. Recommendations were adopted by the Council of Ministers in 2000
- Coordinated technical assistance to privatization with international institutions (World Bank, European Commission) and donor countries

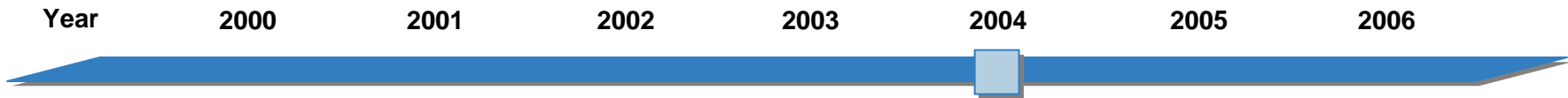
## Results

- Recommendations, laws, terms of references and other deliverables were duly approved by the council of ministers

# Connexus Projects

■ ■ ■ ■ *Transport*

# Reviewing and amending the draft Civil Aviation Act in Saudi Arabia to allow the liberalization of civil aviation and regulatory reform



## Situation

- The presidency of civil aviation in Saudi Arabia is heading towards major reforms in the Saudi aviation sector with the ultimate aim to liberalize the industry and thus required an update of the Civil Aviation Act

## Key Issues

- The new act had to be in line with most international conventions on Civil Aviation even those that the Kingdom didn't ratify to the date of the project
- Special requirement to Saudi Arabia had to carefully integrated to the Civil Aviation Act

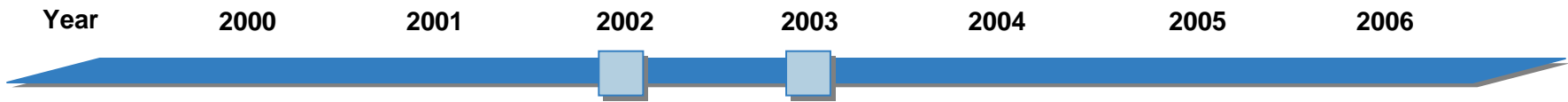
## Connexus Contribution

- Prepared a comprehensive report on the existing draft civil aviation act highlighting the needed changes to allow for restructuring of the sector and its compliance with international standards
- Drafted an amended version of the civil aviation act, taking into consideration the Saudi laws and regulations
- Prepared a roadmap for drafting the civil aviation secondary regulations

## Results

- The updated Civil Aviation Act was submitted to the Shura council and received positive commendations

# Preparing the tender documents and related studies for the selection of an operator for the container terminal at the Port of Beirut



## Situation

- The Government of Lebanon wanted to attract international and well renowned port operators to manage and operate the new contained terminal of the Port of Beirut

## Key Issues

- Maintain transparency and fairness in the process
- Attract well renowned operators amid the overall confidence level in other tenders by the Government of Lebanon

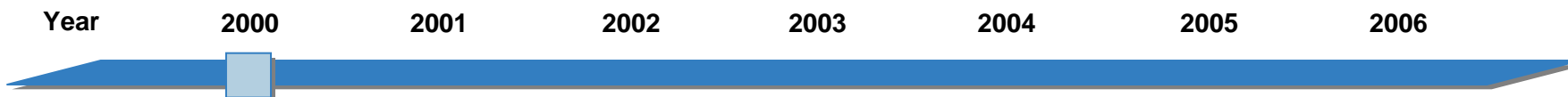
## Connexus Contribution

- Drafted tender documents for the management contract for the Port of Beirut Container Terminal
- Prepared detailed financial model for the selection of an operator for the container terminal
- Drafted contract for the container terminal operator
- Prepared review of strategic options
- Drafted a competitive analysis report
- Performed the required legal and operational due diligence

## Results

- The operation of the newly built container terminal was successfully handed to an Anglo-American consortium composed of International Maritime Associates and Mersey Docks

# Providing assistance to the Lebanese Ministry of Transport and Public Works on reforming the sector and assessing options for private sector participation



## Situation

- The Lebanese Ministry of Transport and Public Works wanted to review reform options and set the country on track for a better transportation sector

## Key Issues

- Several options available therefore a need to assess each separately and adopt the best course of action
- Need to re-establish credibility after concession failure

## Connexus Contribution

- Advised on options for private sector participation in transport infrastructure and services
- Reviewed the Furnish-Own-Operate (FOO) concession of the Port of Beirut container terminal (1998-2001) and drafted report on why the concession failed and recommendations on options
- Drafted Terms of Reference for consultants to assist in the preparation of the concession of the ports of Beirut and Tripoli
- Reviewed and assessed the work of consultants financed by the World Bank and the European Commission
- Drafted terms of reference and supervised the work of consultants to advise the Government of Lebanon on an 'Open Skies' strategy. Study assessed the potential impact of liberalization of civil aviation on air transport
- Assisted in the establishment of an independent civil aviation regulator and mobilized technical assistance for the authority

## Results

- Studies, evaluation and recommendations were adopted, some of which lead to significant institutional and regulatory reforms

# Advising the Lebanese Ministry of Transport and Public Works on privatization and restructuring strategy for Middle East Airlines



Year

2000

2001

2002

2003

2004

2005

2006

## Situation

- The national carrier was losing money and restructuring and privatization were required to restore its profitability

## Key Issues

- High political involvement
- The case was to set a precedent on the seriousness of the government in reform

## Connexus Contribution

- Drafted report to the Government of Lebanon recommending strategy for the restructuring of MEA and its privatization
- Drafted policy report which was the basis for the Council of Ministers' decision to start by restructuring the airline

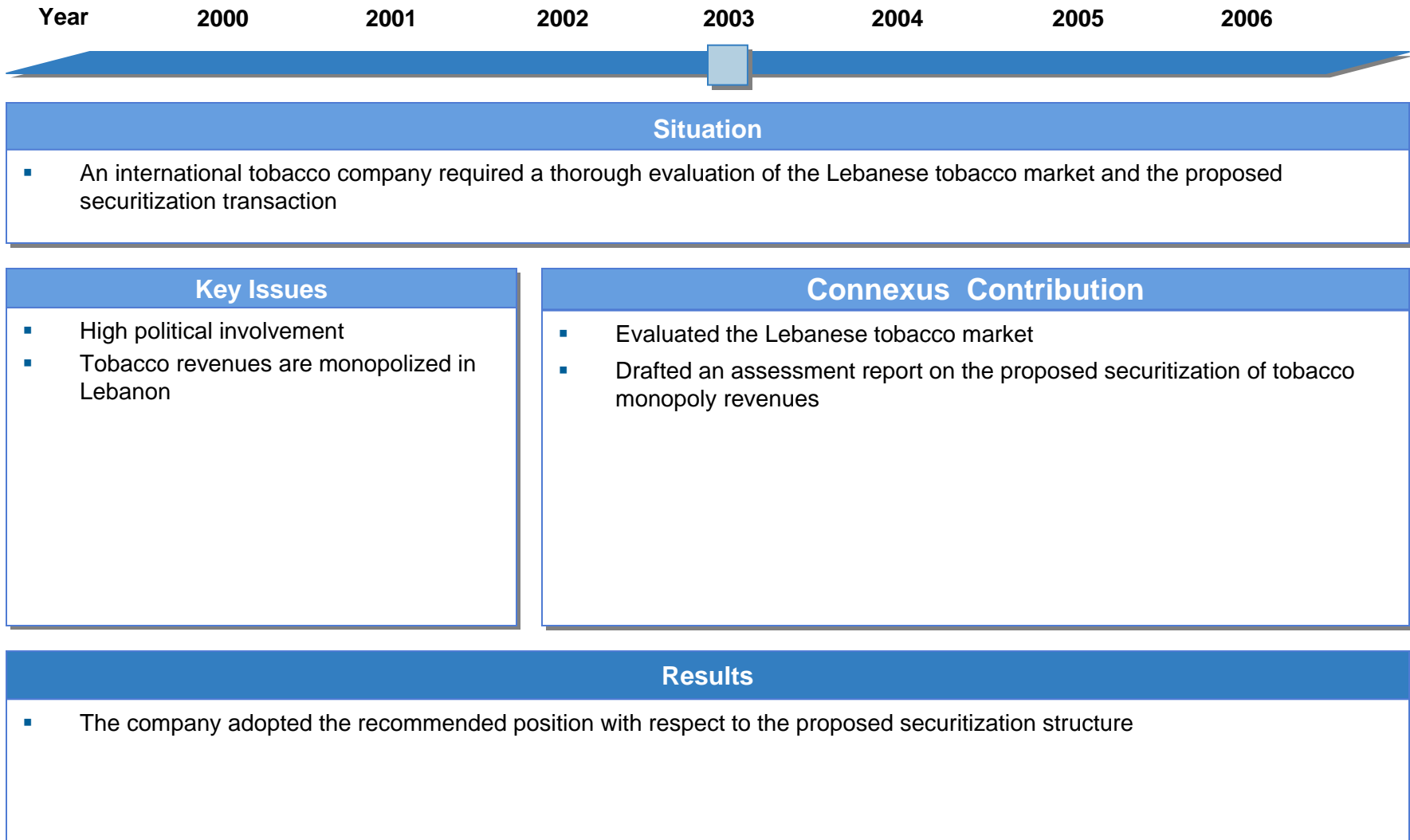
## Results

- The Council of Ministers adopted the recommendations which, two years later, were implemented and helped restore Middle East Airline's profitability

# Connexus Projects

■ ■ ■ ■ *Other*

# Assessing the proposed securitization transaction and the risks associated with it for an international tobacco company



# Connexus Team

■ ■ ■ ■ *Biographies*

# Kamal Shehadi



- ❑ Kamal Shehadi is the Managing Director of Connexus Consulting. Kamal has served as consultant to a number of governments in the region, regulatory authorities, various international organizations, primarily the World Bank but also the European Commission, UN agencies, as well as private investors and companies
- ❑ Overall, Kamal has 15 years of experience in economic policy analysis, and 11 years of consulting experience acquired through various projects in the Middle East and North Africa
- ❑ Kamal's experience in consulting covers the privatization and regulation of telecommunications and transport. His experience includes:
  - Advising a regional telecommunications service provider on strategy and regulation in relation to its bid for the third mobile license in Egypt (ongoing)
  - Advising an investor in mobile television technology on best practices for regulating such services, and on media and telecom regulations in the MENA region - as contractors to Booz Allen Hamilton (ongoing)
  - Advising a start-up telecommunications service provider in Bahrain on regulatory issues, cost modeling, pricing, and other issues (ongoing)
  - Advising the Saudi Ministry of Culture and Information on a new regulatory framework for Saudi media (television and radio) and the licensing of private broadcasters – as contractors to Booz Allen Hamilton (ongoing)
  - Advising the Communications and Information Technology Commission (CITC, the telecommunications regulatory authority in Saudi Arabia) on dispute resolution (ongoing)
  - Advising Etisalat (UAE) on its bid for Telsim, the second largest Turkish mobile service provider, including conducting a commercial and regulatory due diligence (2005)
  - Advising Gulf investors on a regional wireless broadband start-up and reviewing the business plan prepared by the company and the financial projections (2005)
  - Advising CITC in Saudi Arabia and conducting an assessment of the telecom market, developing a financial model for the telecom sector, and proposing a liberalization strategy for telecommunications (2005)
  - Advising NewTel, the prospective second telecom operator in UAE, on its draft license and providing detailed comments (2005)
  - Advising the Supreme Council for Communications and Information Technology (SCCIT) in Qatar on liberalization policy, drafting of regulatory framework, and reviewing drafts of proposed legislation and regulations (2005)
  - Advising Dubai Internet City on Voice Over Internet Protocol (VOIP) regulation and business opportunities (2005)
  - Advising Telecom Egypt (TE) on licensing and regulatory strategy, reviewing the Telecom Egypt draft license, and drafting a new license and an explanatory memorandum which were submitted by TE to the regulatory authority (2005)
  - Advising Ettihad Etisalat Company - Mobily (Saudi Arabia) on interconnection negotiations with the established incumbent, Saudi Telecom, and on its license discussions with CITC (2004)
  - Advising Etisalat (UAE) on regulatory strategy and on preparations to face competition in the UAE market (2004)
  - Advising WMPN (UAE) on its bid for the data licenses in Saudi Arabia, on market entry and license bid preparation, including negotiations and drafting of MOU with an established European operator (2004)
  - Advising the Moroccan regulatory authority - ANRT - on liberalization of the fixed and mobile segments, the selection of licensing strategy, and the drafting of key regulations to promote competition (2004)
  - Advising Orascom on market entry strategy and bid preparation for the international and long distance network license in Algeria (2004)
  - Advising MTC-Vodafone Bahrain on carrier pre-selection and drafting its submission to the Telecommunications Regulatory Authority in Bahrain, and other related regulatory matters (2004)
  - Advising Saudi Telecom on regulatory strategy, license negotiations, tariff regulation, terms of service, quality of service, universal service, and other regulatory issues and on the financial and organizational impact of regulations (2003)

## Kamal Shehadi (cont'd)



- Advising the Ministry of Telecommunications in Lebanon on the organization and financing of the proposed telecommunications regulatory authority; drafting decrees to establish the regulator; establish and corporatize Lebanon Telecom; licensing and other related decrees (2003)
  - Drafting of the Telecommunications Bylaws, Rules of Procedures, draft licenses, and key decisions for the Saudi Communications and Information Technology Commission (2002)
  - Advising the Ministry of Information and Communication Technologies of Jordan on the liberalization of the mobile sector and the issuance of a third mobile license (2002)
  - Consulting for the World Bank and the European Commission's joint Program on Private Participation in Mediterranean Infrastructure (PPMI) in Brussels (2000-2002) on promoting private participation and effective regulation of infrastructure in Algeria (telecommunications and post); on building the capacity of regulatory authorities in Jordan (telecommunications, electricity, and transport); and on the regulation of telecommunications in Lebanon. This last assignment included drafting a telecommunications policy paper and drafting terms of reference for EC grant-funded technical assistance to the establishment of the Telecommunications Regulatory Authority in Lebanon.
- In addition to the international policy and regulation experience that Kamal has, he also has a long experience in Lebanese policy issues and public sector reform:
- From January 1999 until February 2000, Kamal served as Senior Advisor on privatization to the Minister of Economy and Trade in Lebanon. In that capacity, Kamal drafted a privatization policy for the Government of Lebanon, coordinated with a number of donor agencies and ministries on technical assistance, and oversaw the drafting of a privatization law (adopted by Parliament in June 2000). He also served as project leader for the World Bank technical assistance to the Ministry of Post and Telecommunications, where he worked on the new regulatory framework for telecom in Lebanon. These efforts eventually led to Parliament's adoption of Law 431/2002, which is the basis for the regulation of telecommunications in Lebanon for the foreseeable future
  - Over the last ten years, Kamal has served in a variety of advisory roles for ministers in telecommunications, economy and trade, industry, transport, and energy. He has also served on the board of the Beirut Governmental University Hospital and has advised a number of public sector agencies, including the Port of Beirut Authority and the Rafic Hariri Beirut International Airport authority. He has thorough knowledge of the Lebanese public sector, its rules and regulations
  - From 1994 to 1997, Kamal was Director of Research at the Lebanese Center for Policy Studies, an independent policy think-tank. During his tenure at LCPS, Kamal managed to increase the LCPS research budget almost three-fold, and produced incisive analysis and recommendations on privatization, telecommunications liberalization, fiscal deficits, the Euro-Mediterranean association, and a number of other critical issues of public policy
- Kamal is the author of published books and reports on privatization, foreign direct investments, public finance, international political economy, and a number of other issues
- He has provided training in telecom regulation to a number of regulatory authorities and telecommunications firms in the region. Kamal also teaches at the American University of Beirut's School of Business, where he has developed a graduate course on privatization and regulation of infrastructure. Before that, Kamal served as Teaching Assistant at Harvard University (1990-1992) and at Columbia University (1988-1989)
- Kamal has a B.A. with honors from Harvard University in economics, a Master's degree from Columbia University in political economy, and a PhD from Columbia University in international political economy. He has received a number of fellowships and academic awards, most notably the Interdisciplinary Fellowship at Columbia University and the John M. Olin Dissertation Fellowship at Harvard University (1989-1990 and 1990-1991)
- Kamal has long experience in teaching and training, having taught at Columbia University and Harvard University, and as Lecturer at the American University of Beirut School of Business, where he teaches a course on privatization and the regulation of infrastructure to MBA students
- Kamal is fluent in English, French, and Arabic

# George Azar



- ❑ Mr. George Azar is Principal – Corporate Finance at Connexus Consulting sarl, since 2002. George has provided consultancy services to the World Bank, Economic and Social Commission for Western Asia, USAID, and prime investment banks in the Gulf. George’s recent assignments include the financial restructuring of a regional business in the info-com industry and the development of financial model for the Lebanese telecom sector.
- ❑ George enjoys a 15-year experience in financial analysis, the last 10 of which in corporate financial advisory services and macro and micro economic studies. Most recent assignments include:
  - A USAID-funded mission aimed at improving the financial transparency of Lebanese SMEs
  - World Bank funded study aimed at assessing the financial standing and performance of two sample Lebanese public hospitals operating under the new Law of Autonomy
  - Managerial diagnostic review and financial due diligence for a prime Lebanese company operating in the technology business, with branches in the Middle East and Africa
  - “The Prerequisites for a Successful Regional Stock Market Integration from a Corporate Financial Perspective”, a study requested by the Economic and Social Commission for Western Asia – United Nations
  - Financial projections consisting of input-linked pro forma financial statements for the Port of Beirut’s potential foreign container terminal operator
  - Comprehensive financial study and valuation for a holding company incorporated in Europe and offering, through its subsidiaries, a vertically integrated set of services in the Info-Com business in Lebanon, the neighbouring countries and the Gulf
- ❑ George has authored several publications, among which a recent book on the benefits of financial transparency for local SMEs
- ❑ George holds a Bachelor degree in Economics from the American University of Beirut, an MBA with distinction from Notre Dame University – Lebanon, and the Canadian Securities Institute’s year 2000’s Award of Excellence for exceptional academic achievement

# Hisham Kassab



- ❑ Dr. Kassab is a Business and Technology consultant, based in Washington, DC. Formerly with Booz-Allen & Hamilton and a graduate of MIT, Dr. Kassab's technical expertise is in Information and Communication Technology (ICT); and his business experience spans ICT strategic analysis, corporate financial analysis, financial modeling, project management, operational analysis, and organizational structuring. He has worked with clients in the telecommunications, financial services, education, pharmaceutical and retail industries.
- ❑ Dr. Kassab has worked with several clients in the Middle East. His most recent assignments in the region have been:
  - For the primary telecommunications company in the largest Gulf country, he worked on an IT Transformation project involving the roll-out of a new customer care and billing system. Dr. Kassab oversaw three major areas of the roll-out namely, personnel training, PC deployment, and network infrastructure. The second project involved analyzing how to best cope with a sudden surge in demand for cellular service, both in the short-run and the long-run. The analysis involved forecasting future demand and identifying bottlenecks in the process of provisioning the cellular service.
  - For a major Internet Portal in the Middle East, Dr. Kassab performed cost analysis, identified new revenue opportunities, and completed a study on the alignment of the company's technological and operational capabilities with its strategic goals
  - Another client in the Middle East was a holding company, with five-thousand employees. On this project, Dr. Kassab performed corporate financial analysis, strategic analysis, assessment of IT capabilities, and organizational restructuring
- ❑ Dr. Kassab has worked with several clients in Europe and the United States. For a major European mobile operator, he performed financial modeling and strategic analysis for the purpose of formulating a strategy vis-a-vis Mobile Virtual Network Operators (MVNOs). An MVNO leases network capacity from the primary operator, and re-sells the mobile service under its own brand
- ❑ Dr. Kassab also worked on a marketing project aimed at identifying opportunities for Banking/Telco/Tech convergence in the United States. He focused on the business case and the technical feasibility for a major bank to partner with mobile operators for the purpose of developing a wireless payment system. Other areas of the project included investigating m-commerce and wireless banking options
- ❑ Dr. Kassab graduated from the Massachusetts Institute of Technology with B.S., M.S., and Ph.D. in Electrical Engineering & Computer Science (Ph.D. dissertation in wireless communications); and M.S. in Operations Research. He also completed the mini-MBA program at Booz Allen & Hamilton. Dr. Kassab has several articles published in academic and industry journals. He wrote a whitepaper on Wi-Fi strategic threats and opportunities for US cellular carriers; and most recently, he authored an article entitled "Wi-Fi for Windshield Warriors" published in Mobile Business Advisor Magazine

# Louay Abou Chanab



- ❑ Louay Abou Chanab is a senior consultant with Connexus Consulting. Louay has 7 years' experience in the telecommunications industry and 10 years' overall marketing and management experience. During his marketing years, Louay designed several telecom products and offers compliant with the internationally accepted standards of consumer rights and protection
- ❑ Louay's experience with Connexus Consulting includes:
  - Evaluating media and telecom regulatory readiness for Mobile TV in key Arab countries – as contractors to Booz Allen Hamilton (ongoing)
  - Conducting due diligence on the Egyptian regulatory framework and advising a bidder for the third mobile license on the impact of key regulations (ongoing)
  - Working as part of the Booz Allen team on advising a Gulf Emirate on e-Government and e-Readiness while setting the short and long term strategy for the development of its service delivery (2005)
  - Evaluating a Turkish telecommunications operator offered for privatization for a potential bidder (2005)
  - Working as part of the Booz Allen team on advising the State of Qatar on its e-Government strategy (2005)
  - Advising a lottery operator on the feasibility of a lottery operation in Iraq (2005)
  - Working as part of the Booz Allen team on defining the telecommunications liberalization strategy for ictQatar (2005)
  - Advising the Communications and Information Technology Commission in Saudi Arabia on liberalization strategy of the ICT sector (2005)
  - Preparing a post-mortem analysis of the failed mobile sector privatization in Lebanon and an analysis of the policy options since 2000 (2005)
  - Advising a bidder for the data licenses in Saudi Arabia (2004)
  - Working as part of the Booz Allen team on defining the regulatory strategy for the incumbent operator in a Gulf-based market (2004)
  - Assisting the Presidency of Civil Aviation in Saudi Arabia to modernize and update the civil aviation act of the Kingdom (2004)
- ❑ Prior to joining Connexus Consulting, Louay was a senior consultant and team leader for a project with ALJAWAL, the mobile business unit of Saudi Telecom. Louay advised on streamlining the marketing activity of ALJAWAL; establishing procedures for the marketing department; and providing on the job training for ALJAWAL marketing team. Louay also co-managed cross-functional teams developing value added services for ALJAWAL (2003-2004)
- ❑ From 2000 to 2003, Louay worked in the marketing department of FTML-Cellis, a Lebanese mobile operator. Highlights of his work experience with Cellis include:
  - Preparing several business plans for a wide variety of services launched by Cellis. The business plans included short and long term financial analysis (2000-2003)
  - Managing projects and cross-functional teams for the development, integration and market introduction of several mobile telecommunications services in Lebanon. (2000-2003)
  - Managing a diverse portfolio of telecommunications products on the Lebanese market ranging from the basic voice services to the more advanced data services. The most relevant activities undertaken are setting the policies and tariffs of different products, benchmarking them regionally and internationally and preparing medium term roadmaps. (2000-2003)
  - Auditing of internal procedures relevant to the telecommunications industry under the ISO-9001:2000 quality management system (2002-2003)
- ❑ Louay has a B.S. in Business Studies with marketing emphasis from the Lebanese American University, and an MBA from l'Ecole Supérieure des Affaires (ESA) in Beirut. Louay has also successfully completed a thesis on “Strategies for the introduction of M-Commerce and M-Banking in Lebanon”
- ❑ Louay is fluent in Arabic, English and French

# Claudia Abou Rizk Sadaka



- ❑ Claudia Abou Rizk Sadaka is a senior professional with over 9 years of management experience in the Telecommunications industry. Claudia has played a leading role in the introduction of new products and services with tier 1 telecommunication providers such as Bell Canada and Nokia
- ❑ Claudia's experience with Connexus Consulting includes:
  - Advising the Communications and Information Technology Commission in Saudi Arabia (regulatory authority) on the liberalization of fixed and mobile telecommunications. Claudia worked on developing a financial model to simulate the impact of various scenarios and on key regulatory challenges such as interconnection, national roaming, and VOIP (2005).
  - Advising an international financial institution on the Lebanese telecommunications market. The work involved assessing the failed privatization of the telecommunications sector in Lebanon in 2004; a comparison of the financial options available; as well as an evaluation of the impact of the decision to introduce a management contract for the two mobile service providers (2005).
- ❑ Claudia's work experience includes:
  - Developing the business plan (at Inconet Data Management, Lebanon's largest ISP), and leading the launch of wireless Internet services including Wi-Fi service and wireless broadband residential service for Lebanon (2003-2005)
  - Managing the development and implementation of new operational methods and procedures for the introduction of new products and services into Bell Canada's Customer Care Call Centres (2002-2003)
  - Developing the marketing strategy (at Nokia Internet Communications) and launching a new line of e-commerce security products (Secure Sockets Layer Acceleration Products) targeted at large Managed Service Providers and financial institutions with annual revenue objective of \$US 100 Million (1999-2001)
  - Leading service development initiatives, defining service pricing, positioning and service bundling strategies, implementing retention programs, and conducting market research studies for the largest Internet service in Canada (Bell Sympatico) at Bell Canada (1996-1999)
- ❑ Claudia has a Master's degree in Business Administration and a BAsC in Civil Engineering from the University of Ottawa
- ❑ Claudia is fluent in Arabic, English and French

# Hana Adib Habayeb



- ❑ Hana Adib Habayeb is a consultant with Connexus Consulting. Hana has a B.A. with honors from Harvard University in Computer Science, and MPhil from Cambridge University in Technology Policy. She has received the Harvard Foundation Award for promoting inter-cultural and race relations.
- ❑ Hana's experience with Connexus Consulting includes:
  - Evaluating media and telecommunications regulatory readiness for Mobile Television in several key Arab countries – as contractors to Booz Allen Hamilton (ongoing)
  - Conducting due diligence on the Egyptian regulatory framework and advising a bidder for the third mobile license on the regulations and their impact on the bid (ongoing)
- ❑ Prior to joining Connexus Consulting, Hana's work experience includes:
  - Conducting research at the Ministry of Information Communications Technology in Amman, and three Jordanian public universities on the National Broadband Network (NBN) built to connect Jordanian Public Universities. Analyzing organizational structure, work goals and achievements of the Ministry and universities as related to NBN. Presenting recommendations to Minister of ICT, NBN team, and IT departments of three universities (2005)
  - Interviewing industry experts at the Near East Development Group in Amman to determine the feasibility of a \$30 million investment in the tourism industry. Analyzing financial statements, locations and floor plans to determine the reasonability of management's projections regarding a proposed project. Presenting conclusions to the group's CEO. Translating contracts from Arabic to English and recommending amendments where project handover timelines or requirements were problematic (2004)
  - Being part of a 10 person team at the Harvard Arts and Sciences Computer Services that provided technical support with network, software, virus and other operational problems to a community of 400 students. Promoting to position of Student Supervisor after one year. Interviewing, supervising and helping to hire and train a team of 9 new User Assistants (2002-2004)
  - Researching problems IT companies face with Jordanian economic and legislative policy at the Ministry of Information Communications Technology in Amman. Verifying and tabulating technology penetration figures comparing Jordan to several other countries. Analyzing proposals by USAID and Information Technology Association of Jordan to improve Internet penetration (2002)
- ❑ In addition, Hana was President and Vice President of the Harvard Society of Arab Students. Her leadership experience involved:
  - Supervising the society's activities, conducting meetings, and liaising with Harvard administration. Restructuring the constitution to increase membership and participation. Helping organize the Harvard Arab Alumni Association's First Annual Symposium on Promoting Understanding Between the Arab World and the US (2003)
  - Raising funds sufficient for the society's activities for three years. Managing the society's functions including membership, e-mail lists and website (2002)
- ❑ Hana is fluent in Arabic and English and is proficient in French

# Maroulla Haddad



- ❑ Maroulla Haddad is a consultant with Connexus Consulting. Maroulla has a degree of Bachelor of Engineering in Electrical Engineering, minor in Business and Information technology in telecommunications.
- ❑ Maroulla's experience with Connexus Consulting includes:
  - Evaluating media and telecommunications regulatory readiness for Mobile Television in several key Arab countries – as contractors to Booz Allen Hamilton (ongoing)
  - Conducting due diligence on the Egyptian regulatory framework and advising a bidder for the third mobile license on the regulations and their impact on the bid (ongoing)
  - Developing dispute resolution procedures for the Communications and Information Technology Commission in Saudi Arabia (ongoing)
  - Analysis of the telecommunications market in Lebanon. The project includes commercial, legal and financial analysis of the mobile market in Lebanon (ongoing)
  - Reviewing and benchmarking the telecom regulatory bodies and the related framework of different Arab countries: Jordan, Oman, and Morocco (2005)
  - Assessment of GEPB (Gestion et Exploitation du Port de Beirut) accomplishments, and advising on future strategies (2005)
- ❑ Prior to joining Connexus Consulting, Maroulla held a number of jobs at the American University of Beirut (2002-2005)
- ❑ Maroulla's engineering experience includes:
  - Design and implementation of a network gateway using C under LINUX
  - Design and simulation of MIPS processors using C++
  - C++ implementation of an airline reservation system
  - Digital logical design of a Superscalar microprocessor using VHDL
- ❑ Maroulla is fluent in Arabic, English and French