

PADM7007

**ICT Market Structures
&
Regulatory Reform**

**A core course in the degree of
Master of Management
in the field of ICT Policy & Regulation**

Convenor: Prof Lishan Adem

31 August – 3 September 2009

			Learning Information Networking Knowledge
			Wits University Graduate School of Public and Development Management

1 Content overview

The course reviews the impact of technological and policy changes on the development of the telecommunications markets and the impact of the market structure on the regulatory frameworks and institutions. It examines the nature and economics of network infrastructures and the shift from natural monopoly public utility approaches to telecommunications to more market driven policies. It considers the impact of new market and regulatory approaches on the structure and organisation of the industry and the progress these reforms are meant to have induced in the industry and society. The broad consensus on the improved efficiency of privatisation and liberalisation are examined in the face of case study evidence and what conditions in liberalising markets in developing countries have to be met to realise the public interest benefits of reforms. Experiences of different regions and countries will also be reviewed.

2 Session Summary

	Date	Topic	Presenter
1	09:00 – 12:00 Monday 31 Aug	Economic Characteristics of Network Industries, their structure and significance	Lishan Adam
2	13:00 – 16:00 Mon 31 Aug	Economic Characteristics of Network Industries, their structure and significance	Lishan Adam
3	09:00 – 12:00 Tues 1 Sep	Relationship of policy, market design and regulation	Lishan Adam
4	13:00 – 16:00 Tue 1 Sep	Relationships of policy, market design and regulation: Case of South Africa	Lishan Adam
5	09:00 – 12:00 Wed 2 Sep	Regional Policies, Regulations and market structures: Case of Europe	Andrew Barendse
6	13:00 – 14:30 Wed 2 Sep	Regional Policies, Regulations and market structures in European Union: Implications to Africa	Andrew Barendse
7	14:30-16:00 Wed 2 Sep	Regional Policies, Regulations and market structures in European Union: Broadband markets in Europe	Ewan Sutherland
8	09:00 – 12:00 Thu 3 Sep	Changing Boundaries in policies, regulation and market structures – Implications of Convergence and Broadband Market	Lishan Adam
9	13:00 – 14:30 Thu 3 Sep	Changing Boundaries in policies, regulation and market structures: implications of broadband networks	Lishan Adam
10	15:00 – 16:00 Thu 3 Sep	Changing Boundaries in policies, regulation and market structures – The impact of Next Generation Networks	Lishan Adam

3 Course Outcomes

On completion of this course, participants will be able to:

- Explain network industries, their characteristics and market structures
- Analyse through case studies and classroom based exploration the relationship of policy and market structures and the impact they have on the nature of regulation and the fulfilment of national objectives and sector performance
- Describe regionalism in Europe and Africa and its influence in policy, regulation and market structure

- Articulate the changing boundaries in policies, market structures and regulation as a result of technological advancement particularly convergence, broadband and the Next Generation Networks

4 Core Readings

The following core reading is recommended for the course. It is available in electronic format via <http://ignite.wits.ac.za>:

- Bergman L, Doyle C, Gual J, Hlutkrantz L, Neven D, Roller, L H, Waverman L (1998) *Europe's Network Industries: Conflicting priorities*, Telecommunications, Centre for Economic Policy Research, London.

5 Required Readings

One or more required readings will be provided for each session. These are printed out and included in your course pack. You are expected to complete those readings required for each session **in advance** as the lecture will assume familiarity with their content.

Lecturers / facilitators who use teaching aids or provide additional material, will distribute these notes to you as they become available. These notes should be added to your course file and included as part of your course materials.

6 Additional Readings

An electronic library of course notes and links to additional reference material relevant to this course is made available via the Wits Ignite web site at <http://ignite.wits.ac.za>. You will be given a logon ID and password to allow you to access this material, which is loaded under the folder 'PADM5078 Universality & Quality of Service Regulation'. You are strongly encouraged to make extensive use of resources and features of this course web site.

You may also be required to contribute to online discussions or to complete assignments and other forms of assessment via this web site.

Note that many of these readings are presented in Acrobat Reader format, which will require you to have Acrobat Reader installed on your computer.

7 Preparation Requirements

Your preparation work - mainly reading - should be done individually before you come on the course. Questions to guide your reading have been provided for this reason. **Please note that there are group tasks to prepare for specific sessions.** These will assist you to work through the conceptual and theoretical understandings in each of the readings and begin to apply these to cases and issues.

We assume that for every 1 hour that you spend in the classroom, 24 in total, you will need to spend approximately 4 hours in preparation. This includes reading, drafting assignments and examinations. On average, each course comprises 120 notion hours of 12 credits.

8 Syndicates and Group Learning

An interactive and intensive learning methodology is utilised, which involves a combination of lectures, case studies, group and individual projects. Given that many participants are active in shaping the telecommunications sector, the P&DM endorses the "syndicate method" of teaching, which requires that some of the learning will be done in groups. This approach is designed to

enable course participants to contribute to the course, bringing in their own practical experience, knowledge and expertise together with those of their peers to create a rich learning environment.

Each participant will be assigned to a syndicate group. Syndicates and group work are a vital component of the learning process and attendance at all syndicate meetings is required and compulsory.

Syndicate meetings will be organised by the group members at a time and place suitable to them in accordance with the programme's schedule. Although the P&DM will make syndicate meeting rooms available, these meetings need not be held on campus. Syndicate meetings and interactions may also take place virtually, through the course WebCT site and via the mailing lists which will be made available for this purpose.

Problems within syndicate groups are to be reported timeously to the Academic Convenor of this course, so that steps may be taken to resolve them. Syndicates will only be able to change their syndicate group composition under exceptional circumstances, and at the sole discretion of the Academic Convenor.

9 Course Assessment

This course has been designed as a reading intensive course. A key focus then is to build your academic reading and analytical skills while dealing with the course content. There are two components to the assessment for this course: a group assignment, which is done in syndicate groups during the week, and a written examination, which is done individually.


The group assignment will be distributed and completed during the course of the week, and will count 25% towards your final mark for the course. Its due date for submission is 3 September 2008.

The individual exam-equivalent assignment will count 75% towards your final mark for the course. Your lecturers will discuss its requirements during the course of the week, and it will be distributed at the end of the course. It is due for submission **Monday 5 October 2009**.

You will be required to submit the individual exam-equivalent assignment online via the SafeAssign feature of Ignite (<http://ignite.wits.ac.za>). Be aware that this feature performs a check on your assignment for plagiarism and copying.

Information on Content Sessions

Day 1, Session 1 and 2 : Economic characteristics of network industries, their structure and significance	
Presenter	Lishan Adam
Outcomes	<p>Participants will be able to :</p> <ul style="list-style-type: none"> • Analyze the nature of network industries • Describe the concepts of vertical and horizontal market structure and how they emerge • Explain the economic characteristics of network industries e.g. network externalities • Discuss natural monopoly/public utility, oligopoly
Questions to guide you for pre-reading	<ul style="list-style-type: none"> • What are network industries? • What distinguishes network industries from other industries? • What are the benefits of facilities based competition as opposed to service-based competition? • What is the desirable degree of vertical and horizontal integration in the telecommunications industry? • Do telecommunications network remain natural monopolies and should they remain public monopolies? • Give examples of alternative market structures • Which types of vertical and horizontal unbundling can be used to change the market structure in a network industry? • Are the regulatory responses to a private monopoly different from a public owned monopoly? • Give examples of market failures typical of network industries?
Core Readings (Must reads)	<ul style="list-style-type: none"> • Bergman L, Doyle C, Gual J, Hlutkrantz L, Neven D, Roller, L H, Waverman L (1998) <i>Europe's Network Industries: Conflicting priorities</i>, Chapters 1, 2 and 3, Centre for Economic Policy Research, London • Economides, N (2006) 'Public Policy in Network Industries', Law and Economics Research Paper No 06-49, New York University, New York, available online at http://www.stern.nyu.edu/networks/Economides_Public_Policy_In_Network_Industries.pdf
Additional References	<ul style="list-style-type: none"> • Economides, N (1996) 'The Economics of Networks', <i>International Journal of Industrial Organization</i>, No 14, Elsevier Science, Amsterdam • E. Teljeur, Gillwald, A, Steyn, G & Storer, G (2003) 'Regulatory Frameworks: Impact and Efficacy: Volume 1 – Executive Report', Development Policy Research Unit, UCT • Theron, N & Boshoff, W (2006), 'Vertical Integration in South African Telecommunications: A Competition Analysis', <i>South African Journal of Economics</i>, Vol 74, Blackwell, London, available online at http://www.econex.co.za/index.php?option=com_docman&task=doc_download&qid=5&Itemid=60 • Williamson, B & Mumssen, Y (2000) 'Economic Regulation of Network Industries', Treasury Working Paper 00/05, Government of New Zealand, Wellington, available online at http://www.treasury.govt.nz/publications/research-policy/wp/2000/00-05/twp00-05.pdf


Activity	<p>This will be an interactive session where students are required to participate in class discussions actively.</p> <p>Group work: Assignment 1: Review of Different Network Industries</p> <p>Each group is expected take a network industry (transport, energy, postal service, telecommunications) in their own countries and analyze how that specific industry is different from other industries, its characteristics, market structure and the challenges to policy and regulation pertaining to the specific industry.</p>
About your Lecturer	<p>Lishan Adam is an international development researcher and consultant based in Addis Ababa and specializing in ICT for development with a focus on Africa.</p> <p>He is adjunct faculty at Addis Ababa University, Adjunct Professor at the Unity University College, former Course Director on Telecommunications Sector Planning at the University of West Indies and a visiting Associate Professor at the LINK Centre.</p> 

Session 3: Relationship of policy, market design and regulation an overview of experiences around the globe	
Presenter	Lishan Adam
Outcomes	<p>Participants will be able to:</p> <ul style="list-style-type: none"> • Describe the relationship between policy, market structures and regulation • Discuss the need to balance efficiency against equity; monopoly against competition; infrastructure vs. service based competition, unbundling, public vs. private ownership and sector specific vs. competition regulation in determining market design • Evaluate the impact of liberalisation and privatisation on market reform • Analyze the components of network regulation: interconnection, interoperability, access pricing and standards.
Key questions to guide your readings	<ul style="list-style-type: none"> • What has driven market restructuring across the globe? • What is the relationship of policy, market design and regulation? • In what ways do privatisation or liberalisation restructure the market? • Is competition conducive to productivity improvements and price reductions? • Anticipated competition or actual changes in market structure that bring about the beneficial effects of liberalisation? • What is the relationship between market structure of network industries and their regulation? • Explain the dynamic between competition and economic regulation and how this impacts on market development?
Core Readings (must reads)	<ul style="list-style-type: none"> • Boylaud O and Nicoletti, G (2001) Regulation, Market Structure and Performance in Telecommunications, OECD Economic Studies No 32 2001/1 • Bergman L, Doyle C, Gual J, Hlutkrantz L, Neven D, Roller, L H, Waverman L (1998) Europe's Network Industries: Conflicting priorities, Telecommunications, Centre for Economic Policy Research, London Chapter 4.
Additional References	<ul style="list-style-type: none"> • Hellwig, Martin, (2008), Competition Policy and Sector-Specific Regulation for Network Industries, available online, • Liangchun Yu and Sanford Berg, (2004), Market Performance of Chinese Telecommunications: New Regulatory Policies, bear.cba.ufl.edu/centers/purc/primary/documents/market_perf_000.pdf • Newbrey, David, Market Design, Paper presented at the Conference "Implementing the Internal Market of Electricity: Proposals and Time-Tables" on Friday, 9 September 2005 in Brussels • Wallsten, Scott (2002) Does Sequencing Matter? Regulation and Privatization in Telecommunications Reforms, World Bank at www.info.worldbank.org/etools/docs/voddocs/152/334/sequencing.pdf


Activity	This is an interactive session where students are expected to discuss cases of relationships between policy, market design and regulation in different countries
About your Lecturer	See above.

Session 4: Relationship of policy, market design and regulation: In depth analysis of the case of South Africa

Presenter	Lishan Adam
Outcomes	<p>Participants will be able to:</p> <ul style="list-style-type: none"> Analyse the relationship between policy, market design and regulation in South Africa Describe the impact of liberalisation and privatisation on market reform in south Africa Analyse network regulation: interconnection, interoperability, access pricing and standards in South Africa
Content	<p>What were the key challenges to the telecommunications market in South Africa?</p> <p>Were policy and regulatory reforms in South Africa adequate to change the market structure?</p> <p>What measures should put in place to alter the market structure?</p>
Core Readings (read before you come to class)	<ul style="list-style-type: none"> Gillwald A (2005) Good Intentions, Poor Outcomes: Telecommunications Reform in South Africa Telecom Policy, Vol .27, and Elsevier. Teljeur, Gillwald, Steyn & Storer (2003) Regulatory Frameworks in South Africa, Impact and Efficacy, Executive report, TIPS http://www.commerce.uct.ac.za/dpru/Conference2003/p_teljeur_5b_overview.pdf
Additional References	<ul style="list-style-type: none"> Hodge, J (2001) 'Promoting Competitive Outcomes in the Fixed Line Telecommunications Sector in South Africa', unpublished conference paper, TIPS 2001 Annual Forum, Muldersdrift, available online at http://www.idrc.ca/uploads/user-S/11798688171Promoting_Competitive_Outcomes_in_the_Fixed_Line_Telecommunications_Sector_in_South_Africa.pdf
Activity	This is an interactive session with discussion and debate of challenges facing the South African telecommunications market
About your Lecturer	See above.

Session 5: Market structures and Regulation in European Union	
Presenter	Andrew Barendse
Outcomes	<p>Participants will be able to:</p> <ul style="list-style-type: none"> • Describe the evolution of a competitive regulatory framework in the European Union • Review the EU 2002 directives and analyze their successes and failures • Analyze the reasons for ongoing review of the reform in Europe • Articulate the implication of regional governance on national policies, market structure and regulation in Europe • Analyze the relevance and impact of reforms in Europe on African countries
Content	This session will analyze the experiences of regional regulation as a new institution the telecom sector and assess its implications for regulatory effectiveness and sector.
Core Readings (must read before coming)	<ul style="list-style-type: none"> • Geradin, D (2006) 'The liberalization of network industries in the European Union: where do we come from and where do we go?', Economic Council of Finland, Helsinki, available online at http://www.vnk.fi/hankkeet/talousneuvosto/tyo-kokoukset/globalisaatioteselvitys-9-2006/artikkelit/Geradin_06-09-20.pdf • Buigues, P-A (2006) 'Competition policy versus sector-specific regulation in network industries – The EU experience', 7th Session of the Intergovernmental Group of Experts on Competition Law and Policy, Geneva, 30 October - 2 November 2006, United Nations Conference on Trade and Development, Geneva, available online at http://unctad.org/sections/wcmu/docs/c2clp_ige7p14_en.pdf
Additional References	<ul style="list-style-type: none"> • David Coen and Chris Doyle, Liberalization of Utilities and Evolving European Regulation, http://www.blackwell-synergy.com/doi/pdf/10.1111/1468-0319.00236?cookieSet=1 • Volker Schneider and Raymund Werle, 2006, Telecommunications Policy, in Paolo Graziano and Maarten Vink, eds. Europeanization: New Research Agendas. Basingstoke: Palgrave Macmillan. Also available at: www.uni-konstanz.de/FuF/Verwiss/Schneider/ePapers/VSRW_TPCh20.pdf • Directive 2002/21/EC of the European Parliament and the Council on Common Regulation on Electronic Communications Networks and Services, http://europa.eu.int/eur-lex/pri/en/oj/dat/2002/l_108/l_10820020424en00330050.pdf
Activity	This is an interactive session and students are expected to participate actively in the debate
About your Lecturer	<p>Andrew Barendse (PhD) is Visiting Adjunct Professor in the Graduate School of Public and Development Management.</p> <p>Prior to his appointment at Wits he held the positions of Assistant Professor and Research Fellow at Delft University of Technology in the Netherlands. He has 20 years experience in the telecom sector. His research interests include various aspects of telecom regulation, corporate strategy and public values in network industries.</p> 

Session 6: Market structures and regulations in EU- Implications to Regionalism in Africa	
Presenter	Andrew Barendse
Outcomes	Participants will be able to:
Content	<ul style="list-style-type: none"> • Implication of regional governance on market structure • Regionalism and model of governance in Africa
Core Readings	<ul style="list-style-type: none"> • ITU Regulatory Toolkit, Regional Frameworks, http://www.ictregulationtoolkit.org/en/Section.1652.html
Additional References	<ul style="list-style-type: none"> • Barendse, A (2006) Regulatory reform in SADC: Regional regulation as a new form of governance in the telecom industry, Regional report on SADC and TRASA
Activity	Students will discuss the state of regional policy and regulation in Africa and how our regional system of governance can be improved to improve policy, regulation and market structure in the region
About your Lecturer	See above.

Session 7: Regional Regulations: EU Broadband Policy and Markets	
Presenter	Ewan Sutherland
Outcomes	<p>Participants will be able to:</p> <ul style="list-style-type: none"> • Explore the evolution of policies and regulation in the EU broadband market • Understand the effect of the regulatory regime on both penetration and coverage of broadband access • Draw lessons for Africa
Content	<ul style="list-style-type: none"> • What are the major policies and regulatory instruments that the EU used to promote broadband networks? • What are the implications of EU frameworks for broadband markets at national levels? • Were the regional regulatory and policy instruments effective? • What lessons can be drawn for emerging broadband markets in Africa? •
Core Readings	<ul style="list-style-type: none"> • Cadman, R (2008) 'Inconsistent Regulation, Market Structure and Broadband Adoption in the EU: a Dynamic Model', CCP Working paper 08-14, University of East Anglia, Norwich, available online at: http://www.spcnetwork.co.uk/uploads/Inconsistent_Regulation.pdf
Additional References	<ul style="list-style-type: none"> • European Commission (2006), Communication from the Commission to the Council: on the Review of EU Regulatory Framework for Electronic Communication and Services, http://ec.europa.eu/information_society/policy/ecomm/doc/info_centre/public_consult/review/com334_en.pdf and also see the 12th report: http://ec.europa.eu/information_society/policy/ecomm/doc/implementation_enforcement/annualreports/12threport/com_2007_155_en.pdf • Henten, Anders and Markus Schneider, 2003, Has Liberalisation of Telecommunications Failed in Europe?, COMMUNICATIONS & STRATEGIES, no. 50, 2nd quarter 2003, www.idate.org/fic/revue_telech/27/henten.pdf
Activity	Students will discuss the state of EU policy and regulation and draw lessons on the implication to regulation of African emerging broadband markets
About your Lecturer	<p>Ewan Sutherland is an independent telecommunications policy analyst.</p> <p>He has undertaken recent assignments in Laos, South Africa and Europe. He was Executive Director of INTUG, the International Telecommunications Users Group (INTUG), based in Brussels, between 1999 and 2005. He spent fifteen years as an academic, latterly a dean in the University of Wales. He has taught at the Universities of Wolverhampton, Westminster, Stirling and Wales, plus a semester as a visiting faculty at Georgetown University (Washington, DC) and GSTIT (Addis Ababa). He is a research fellow at the LINK Centre at the University of the Witwatersrand.</p> 

Session 8: Changing Boundaries in Policies, Regulation and Market Structure – Implications of Convergence	
Presenter	Lishan Adam
Outcomes	<p>Participants will be able to:</p> <ul style="list-style-type: none"> • Explore various aspects of convergence and its impact on market • Analyze the implications of convergence on policy, regulation and sector performance
Content	<ul style="list-style-type: none"> • What are the key forces and modes of convergence? • Is convergence desirable by users? • What are the market and regulatory implications of convergence? • Why are more horizontal markets effective in a converged environment? • What policies should be put in place to stimulate convergence?
Core Readings	<ul style="list-style-type: none"> • OECD (2007) 'Convergence and Next Generation Networks', Ministerial Background Report, Organisation of Economic Co-operations & Development, Paris, available online at http://www.oecd.org/dataoecd/25/11/40761101.pdf
Additional References	<ul style="list-style-type: none"> • Henten, A (2002) Regulation in a liberal, international and converging communication market in Cammaerts B and Burgelman JC (eds) Beyond Competition: Broadening the scope of telecommunications policy, VUB University Press. • Jérôme Bezzina and Mostafa Terrab, 2005, The Impact of New Technologies on Regulatory Regimes, Introductory Comments, • Oupa Suping, Kerron Edmunson and Anton Alberts, Convergence, http://link.wits.ac.za/papers/telelaw11.pdf
Activity	<p>Group work: Assignment 2- What does convergence mean to policy, regulation, market structure and the ICT sector performance in your country?</p> <p>You are expected to:</p> <ul style="list-style-type: none"> • The main issues and drivers of convergence? • Discuss whether convergence actually necessary at the time when consumer demand choices? What institutional, technological (e.g. broadband networks) and other building blocks that should be put in place to stimulate convergence so that diverse services are available to consumer? • Should the current policy and regulation change to embrace convergence? • What are the major approaches to regulating convergence? • What are the key elements of a legislation and policy on convergence? • What are some of the issues that should be considered for transition from a vertical licensing framework to a converged horizontal licensing framework? <p>Each group should take these questions and submit a five page summary of your findings</p>
About your Lecturer	See above.

Session 9: Changing Boundaries in Policies, Regulation and Market Structure – Implications of Broadband	
Presenter	Lishan Adam
Outcomes	<p>Participants will be expected to:</p> <ul style="list-style-type: none"> • Analyze the link between policies and programs, regulatory frameworks, and market structure for deployment of high speed and low cost broadband networks • Describe the desirable market and cost structure of broadband networks
Content	<ul style="list-style-type: none"> • What is the most desirable market and cost structure for broadband communication networks • How do policies and regulatory regimes affect the emergence broadband markets? • What desirable business models, plans, policies and regulation are expected to stimulate the deployment of broadband networks in Africa?
Core Readings	<ul style="list-style-type: none"> • Faulhaber, G & Hogedorn C (2000) 'The Market Structure of Broadband Telecommunications', <i>Journal of Industrial Economics</i>, Vol XLVIII, Wiley-Blackwell, Hoboken NJ, available online at http://rider.wharton.upenn.edu/~faulhabe/Broadband.pdf
Additional References	<ul style="list-style-type: none"> • Kenji Kushida and Deund-youn Oh, (2006),The Political Economies of Broadband Development in Korea and Japan, SJC Discussion Paper (2006)
Activity	This is an interactive session – students are required to bring cases of broadband projects and issues and discuss during the presentation
About your Lecturer	See above.

Session 10: Changing Boundaries in Policies, Regulation and Market Structure – Next Generation Networks	
Presenter	Lishan Adam
Outcomes	<p>Participants will be able to:</p> <ul style="list-style-type: none"> • Describe the policy and regulatory ecosystem of Next Generation Networks • Question how NGN redefined policy and regulatory issues and the market structure • Distinguish between policies and regulation for traditional networks (POTS) and the Next Generation Networks
Content	<ul style="list-style-type: none"> • What are the components and network architecture of NGN? • What are the major market design and regulatory issues in NGN environment? • How are countries addressing the emerging policy and regulatory issues of NGN? • What are the implications of NGN to Africa (e.g. Tunisia and South Africa that have shown some interest in pursuing NGN?)
Core Readings	<ul style="list-style-type: none"> • Wey C, Baake P and Heitzler S (2006) Ruling the New and Emerging markets in the Telecommunications sector: The Emergence of NGN, ITU, http://www.itu.int/osg/spu/ngn/documents/Papers/Wey-060323-Prem-v1.1.pdf • Gillwald A (2003) National convergence policy in a Globalised World: Preparing South Africa for Next Generation Networks, Services and Regulation, LINK Centre Public Policy Research Paper No 4. available at: link.wits.ac.za/papers/ag20030707.pdf
Additional References	<ul style="list-style-type: none"> • Working Party on Telecommunication and Information Services Policies, 2005, Next Generation Network Development in OECD Countries, www.oecd.org/dataoecd/58/11/34696726.pdf • TRAI, Recommendations on Issues Pertaining to Next Generation Networks (NGN), www.trai.gov.in/trai/upload/Recommendations/47/recom20mar06.pdf • Devoteam Sitcom & Cullen International. (2003), Regulatory implications of the introduction of next generation networks and other new developments in electronic communications, ec.europa.eu/.../policy/ecom/doc/info_centre/studies_ext_consult/regulatory_implications_execsum.pdf
Activity	This is an interactive session – participants are required to engage in discussion
About your Lecturer	Lishan Adam is an international development researcher and consultant based in Addis Ababa and specializing in ICT for development with a focus on Africa. He is adjunct faculty at Addis Ababa University, Adjunct Professor at the Unity University College, Course Director on Telecommunications Sector Planning at the University of West Indies and a visiting Associate Professor at the LINK Centre.

Take-home Exam-equivalent Assignment	
Topics	The take-home exam-equivalent assignment will assess your ability to apply your understanding of: <ul style="list-style-type: none">• Network infrastructures and market structures• Relationship between policy and market design• Relationship between market structures and regulatory approaches• Influence of new technologies and convergence on market boundaries• Regulatory implications of these developments
Preparation	Required and recommended readings and additional sources you can identify.