

ITU/BDT Regional Economic and Financial Forum of Telecommunications/ICTs for Asia and Pacific

Evolution of Internet market offers, convergence and service bundling

Myanmar, 1-2 September, 2014

**Oscar González Soto
ITU Consultant Expert
Spain
oscar.gso@gmail.com**

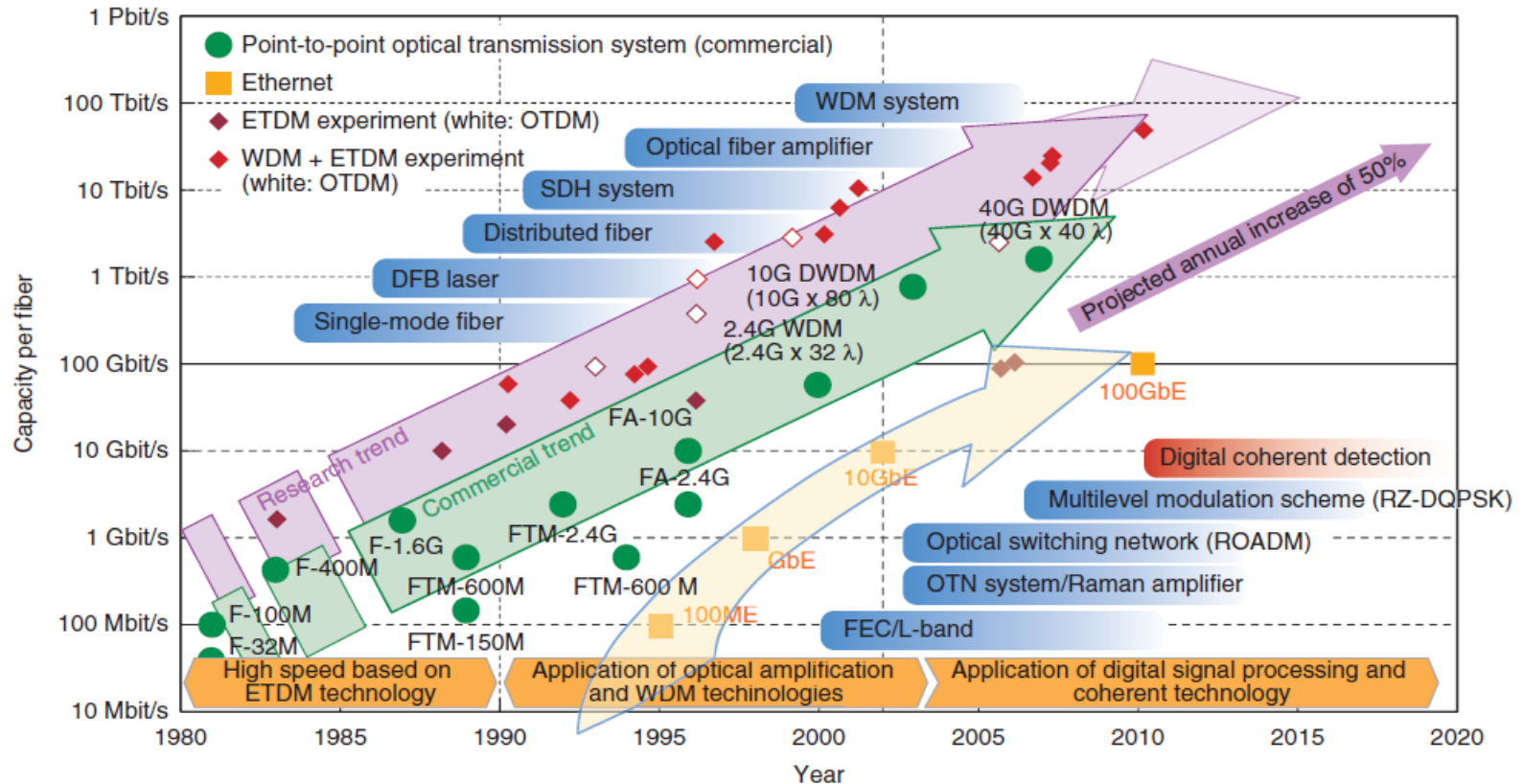
Agenda

- **Key factors driving the offers**
- **Influence of Convergence**
- **Historical evolution of market offers**
- **Service bundling offers and trends**

Key factors driving the offers

- Network technology and convergence
→ Higher capacities at lower costs
- Competition level and market fairness
→ Regulatory rules and Optimization of the offers
- New services market and consumer capabilities
→ Consumer motivation and affordability
- Resource consumption and service provisioning costs
→ Economic sustainability
- Economy of scale and service packaging
→ Operational cost reduction and easier relation to consumer

Key factors driving the offers: evolution of optic capacities

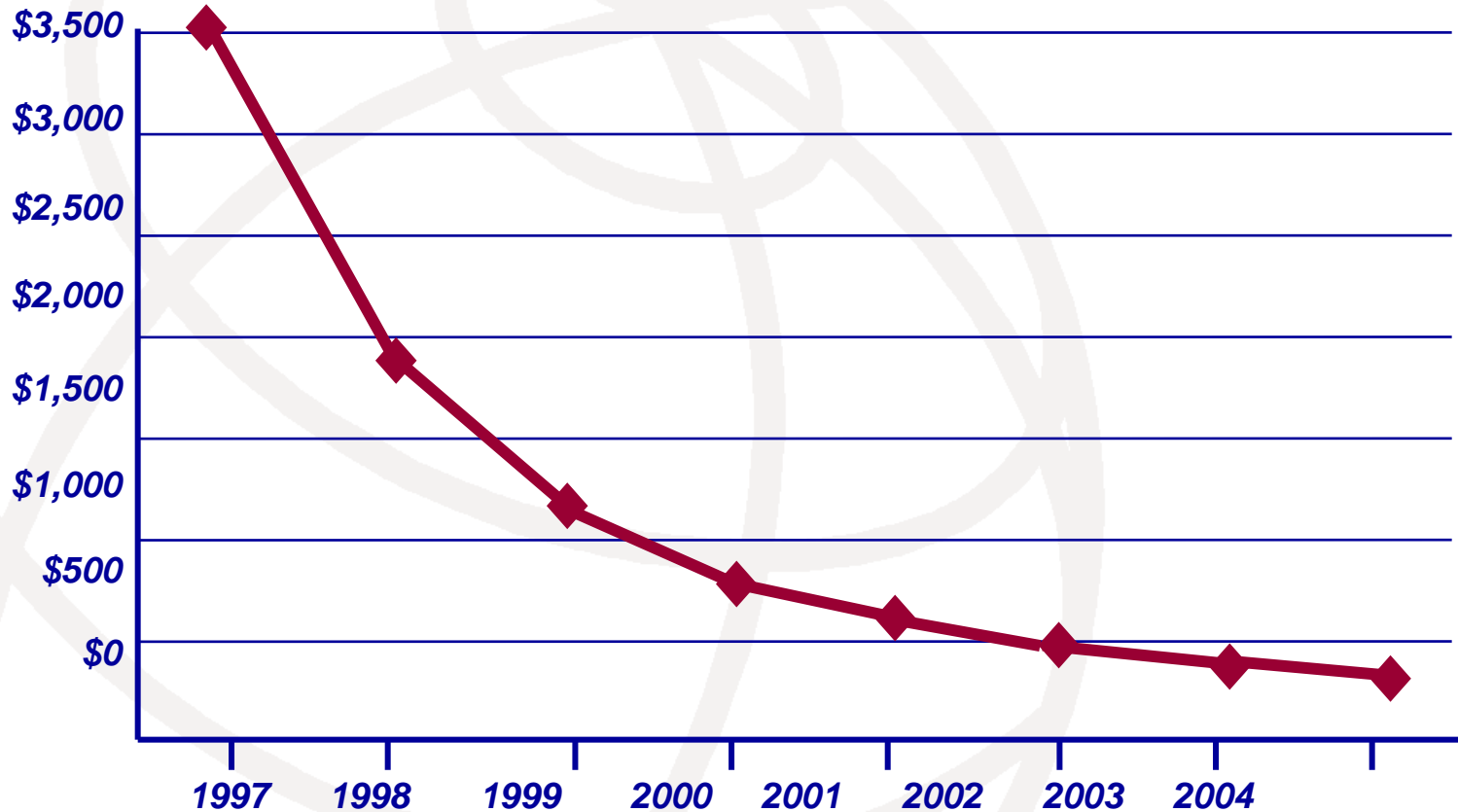


100ME: 100-Mbit/s Ethernet
 DFB: distributed feedback
 F, FTM, and FA are the names of NTT systems.
 FEC: forward error correction
 G: Gbit/s
 GbE: Gigabit (Gbit/s) Ethernet
 λ: wavelengths

M: Mbit/s
 ME: Megabit (Mbit/s) Ethernet
 OTDM: optical time division reflectometry
 OTN: Optical Transport Network
 RZ-DQPSK: return-to-zero differential quadrature phase key shifting
 SDH: synchronous digital hierarchy
 WDM: wavelength division multiplexing

Source: NTT

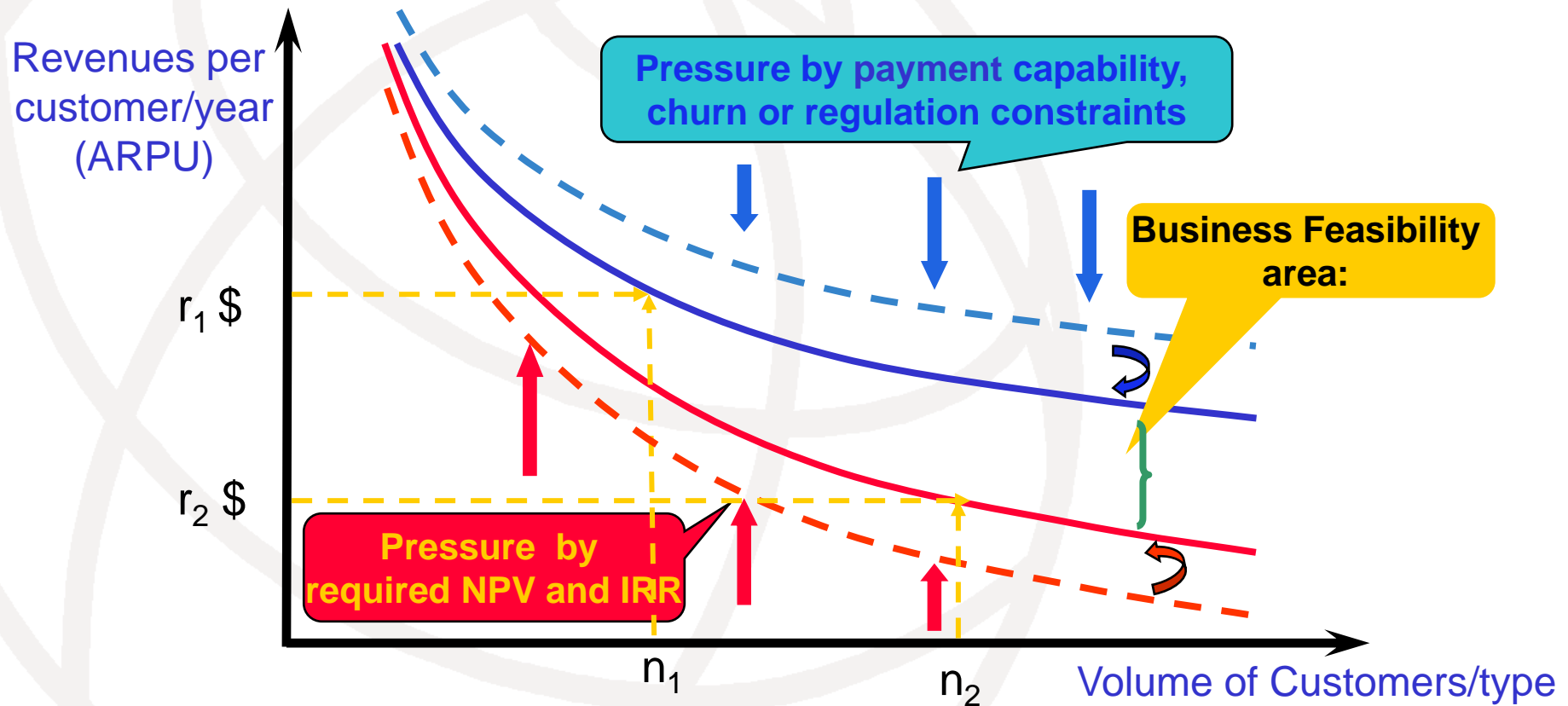
Key factors driving the offers: historical cost reduction for Ethernet



Source: Dell'Oro Group

Key factors driving the offers: Competition level

Business feasibility area limited by positive NPV and payment affordability



Agenda

- **Key factors driving the offers**
- **Influence of Convergence**
- **Historical evolution of market offers**
- **Service bundling offers and trends**

Influence of Convergence: higher economic efficiencies

The five dimensions of the economy of scale:

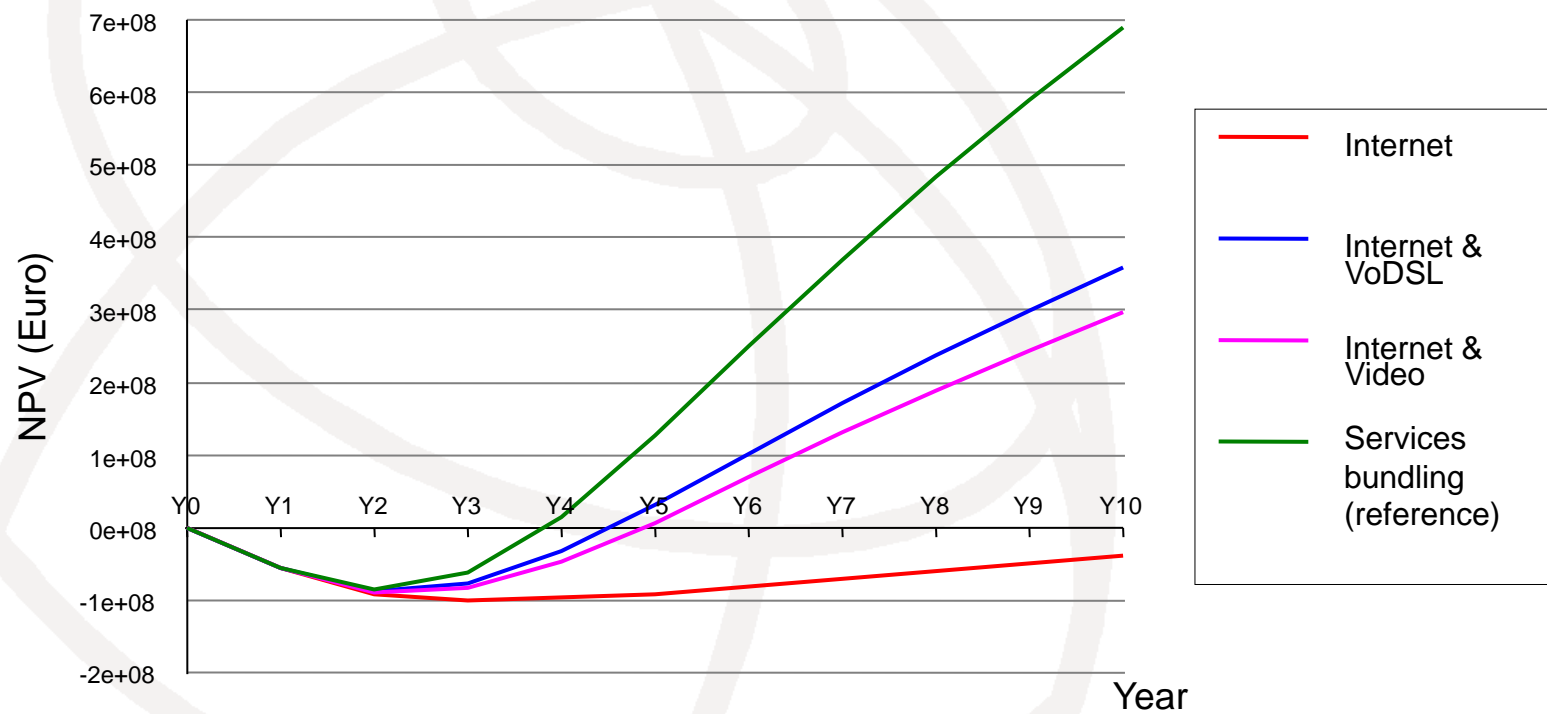
- By **Size** of the systems within a technology →
- By **Technology** capabilities →
- By **Traffic efficiency** with the occupancy →
- By customers **Density** →
- By **Volume** of purchasing →

Economic benefits per dimension:

- Cost reduction per unit (i.e.: **10% to 30%**)
- New technologies with higher productivity (i.e.: **x4** capacity with **1.2** in cost)
- Better utilization for a given GoS when larger systems (i.e.: **+20%**)
- Quadratic decrease with coverage radio increase
- Discount per volume in log scale (i.e.: **up to 40%**)

Influence of Convergence: Business effects of service packaging

Effects of the mix of **services** on the Network NPV in a NGN network:



- Major impact of service classes on NPV and company survivability
 - **High benefit of services bundling**

Agenda

- **Key factors driving the offers**
- **Influence of Convergence**
- **Historical evolution of market offers**
- **Service bundling offers and trends**

Highlights per country: Philippines case at 2011

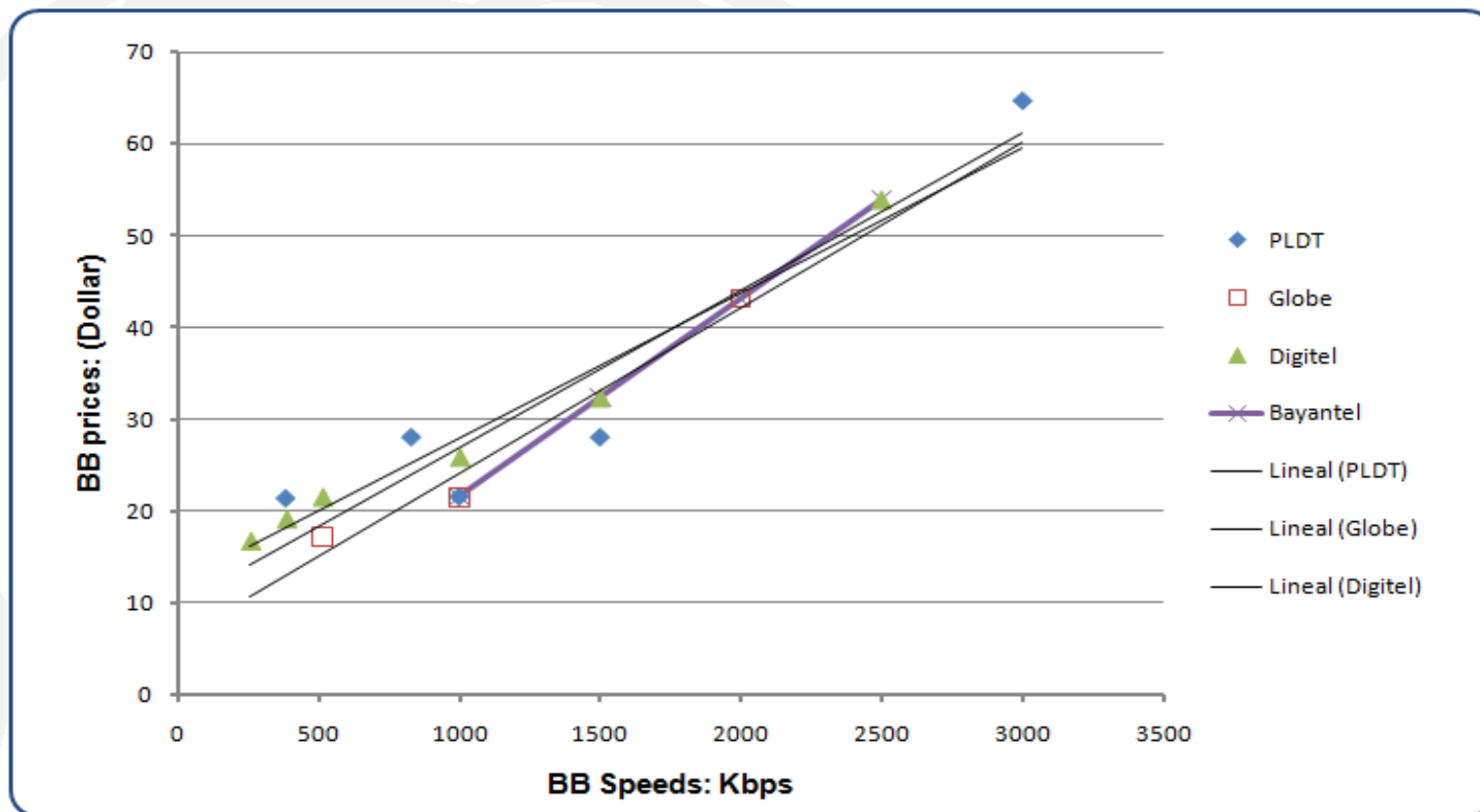
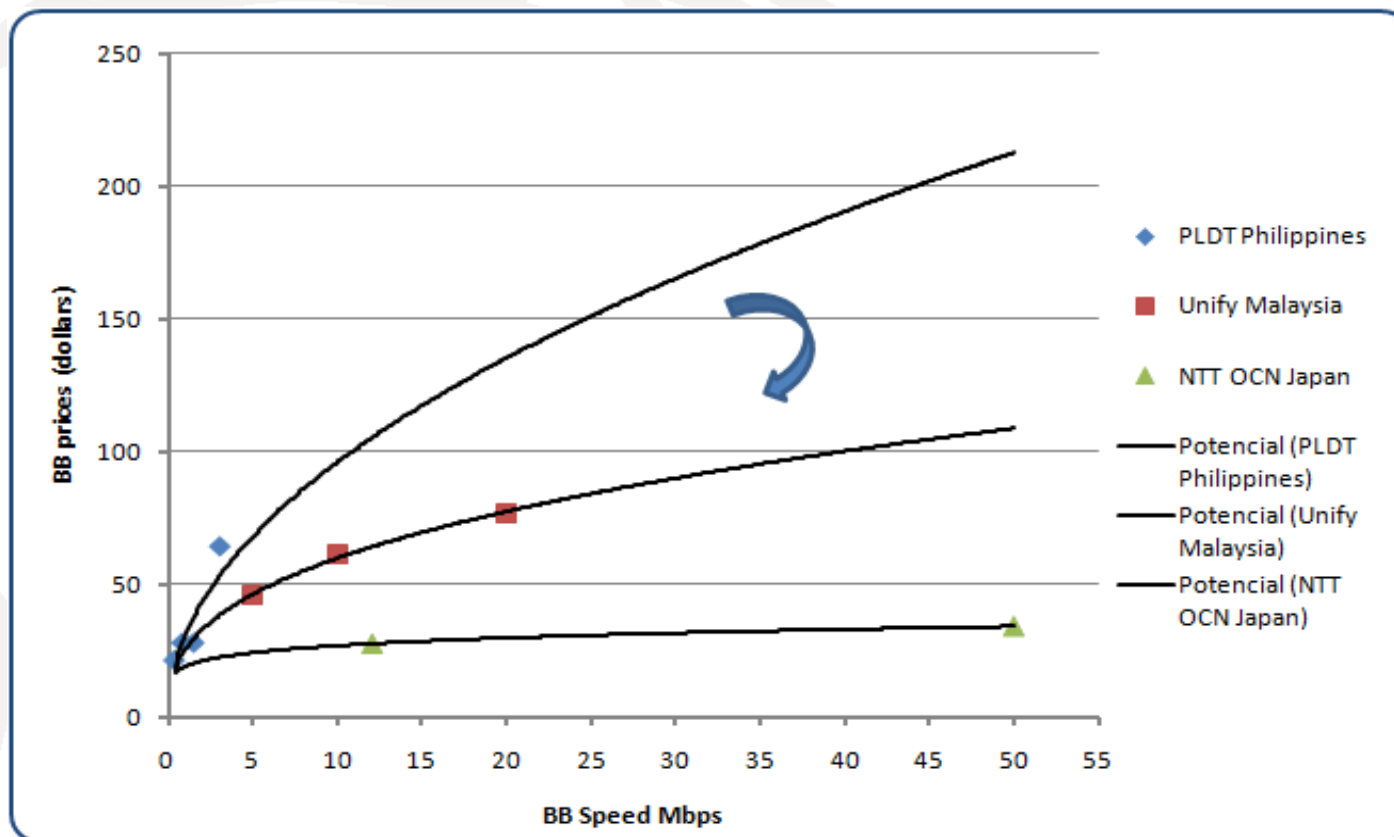


Diagram illustrates the relations between speeds and prices that show a significant linear increase with speeds.

Highlights per country: Philippines: recommendations for evolution



From benchmarking with representative more advanced operators it is proposed to apply economies of scale to reduce prices of higher speeds and enhance development.

Highlights per country: Sri Lanka case at 2011

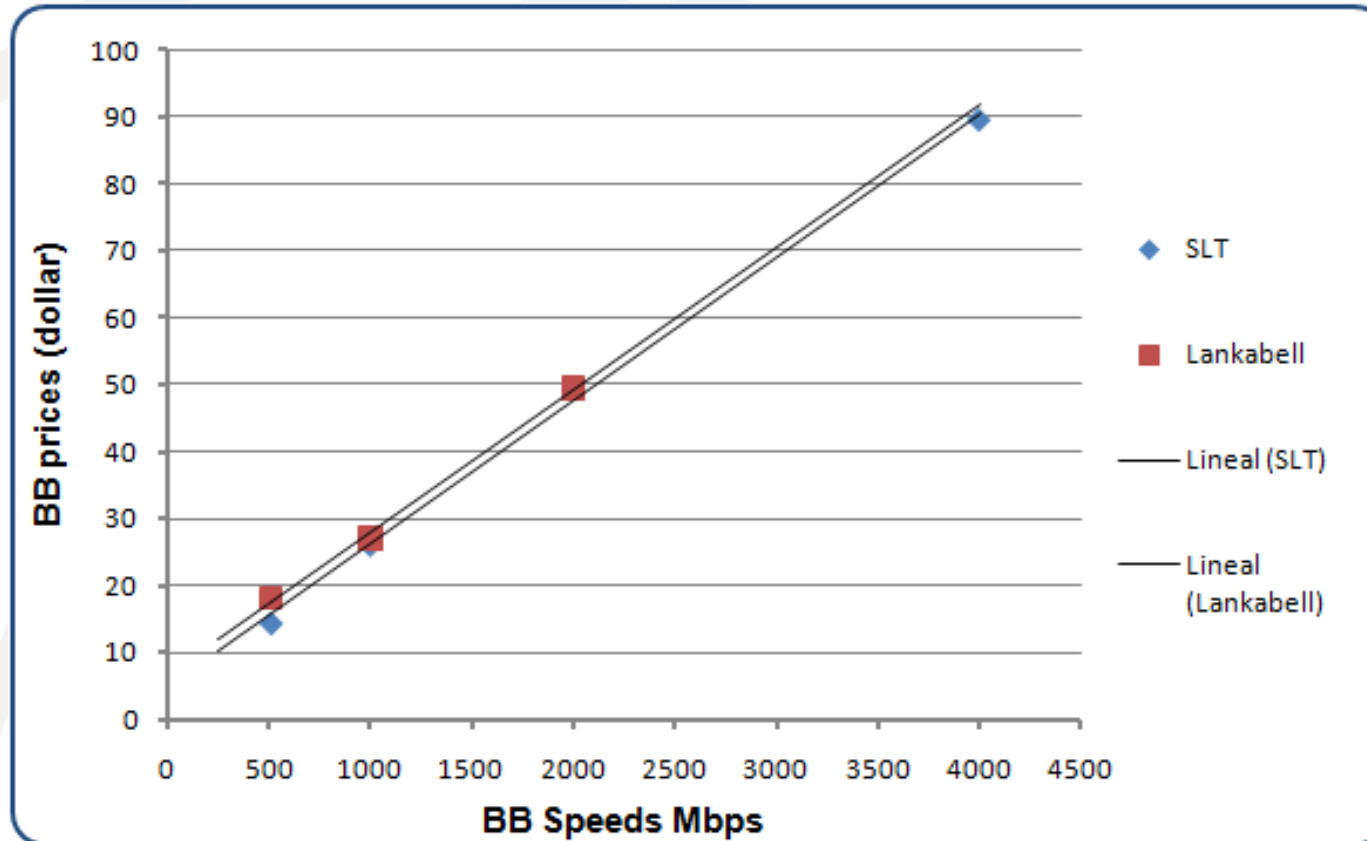
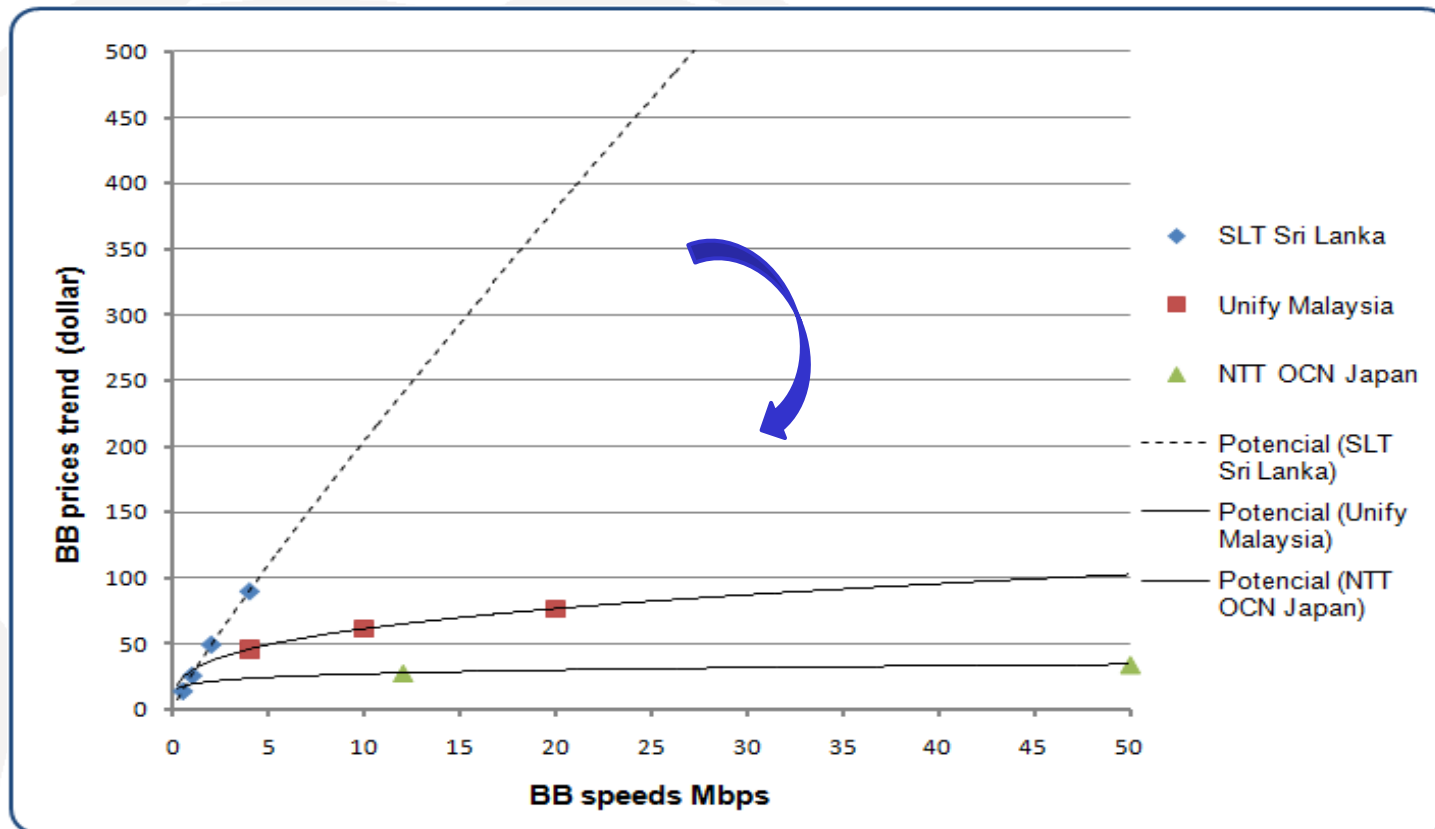


Diagram illustrates the relations between speeds and prices that show a significant linear increase with speeds.

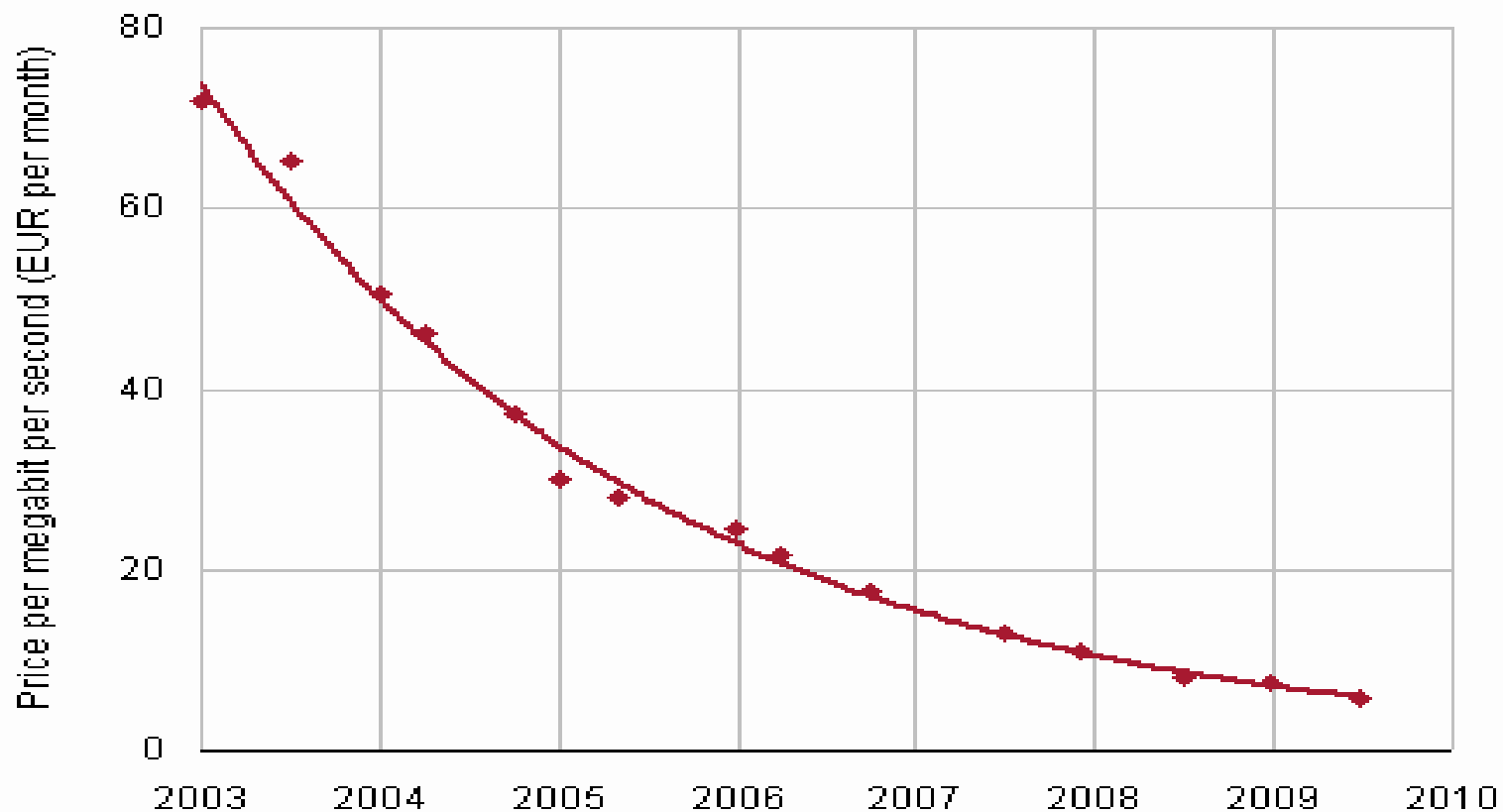
Highlights per country: Sri Lanka case: recommendations for evolution



From benchmarking with representative more advanced operators it is proposed to apply economies of scale to reduce prices of higher speeds and enhance development

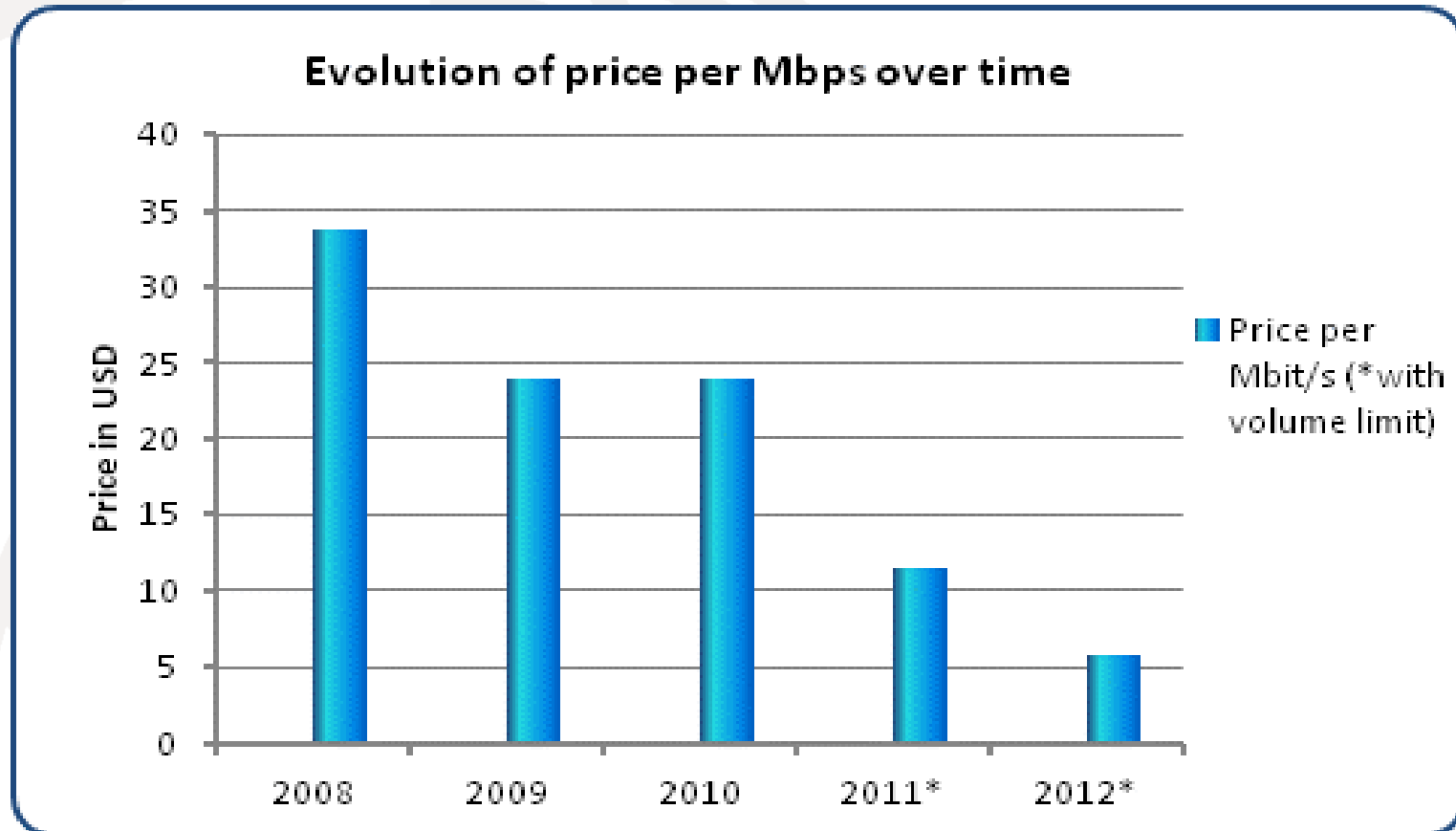
Pricing and Market dynamics

Example of price based on cost reduction for fixed BB residential access in the EU



[Source: Analysys Mason, 2010]

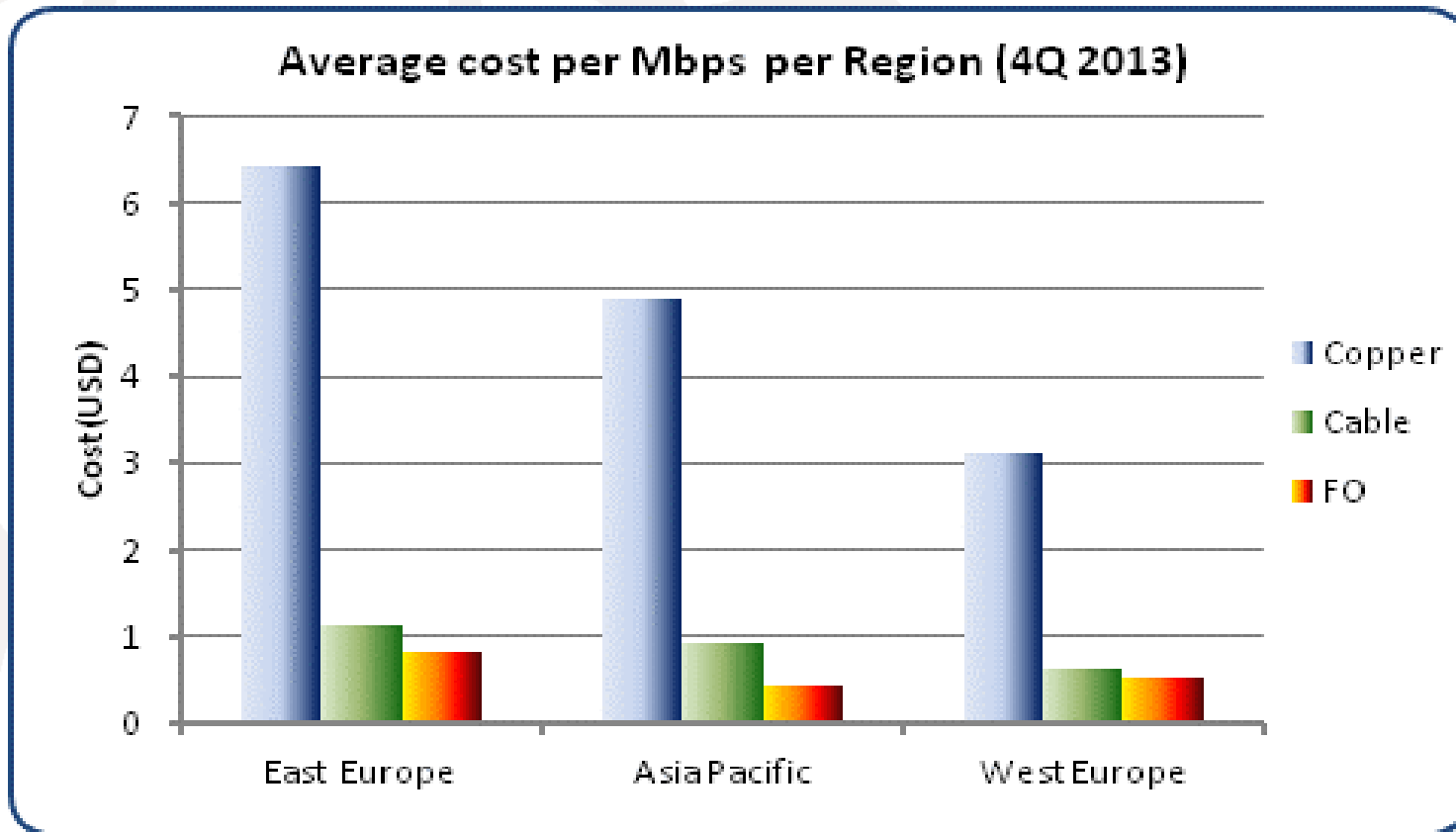
Pricing and Market dynamics Evolution in Sri Lanka



(Source: TRCSL and own processing)

Pricing and Market dynamics

Example of BB prices per region and technology



(Source: Point topic and own processing)

Agenda

- **Key factors driving the offers**
- **Influence of Convergence**
- **Historical evolution of market offers**
- **Service bundling offers and trends**

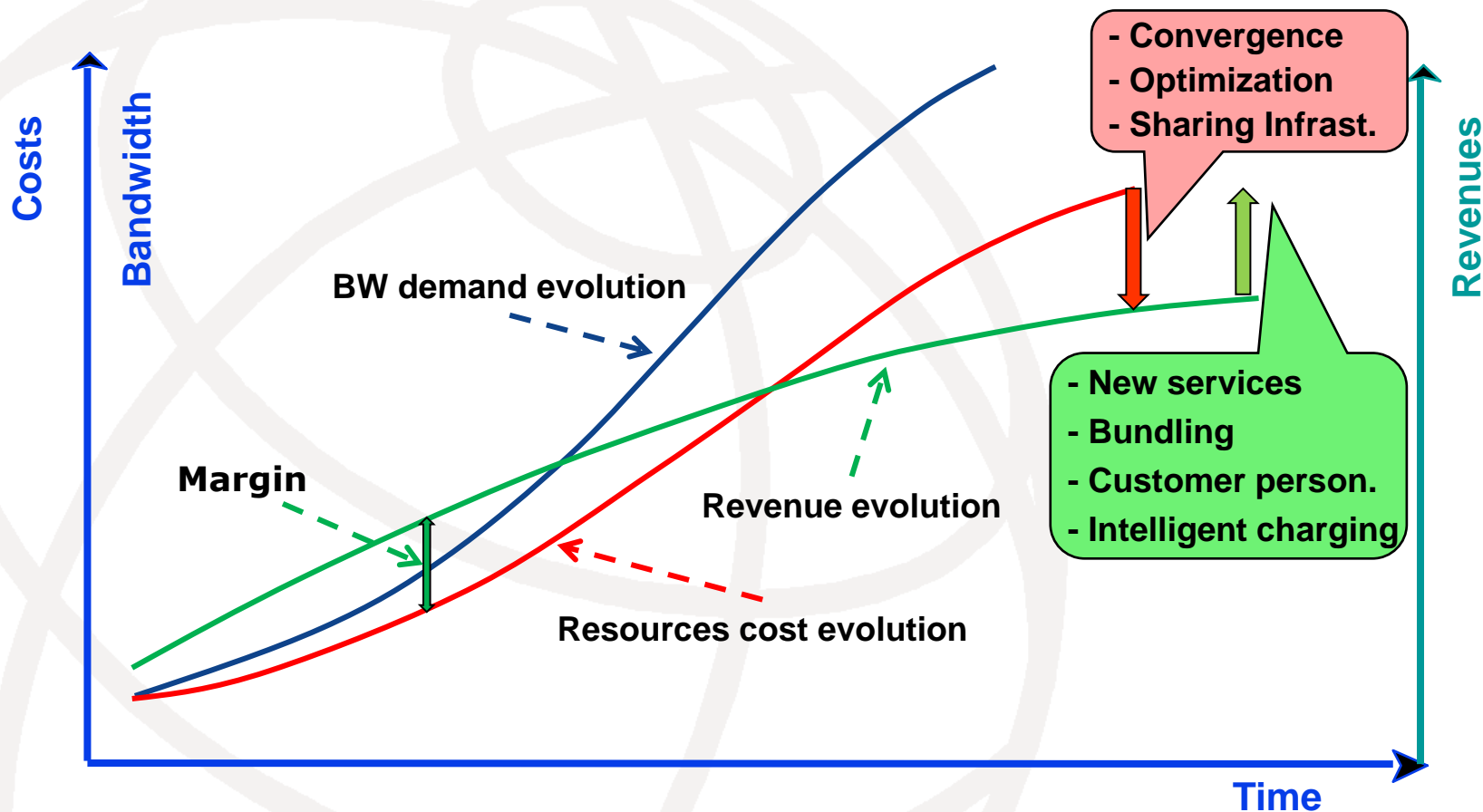
Service bundling offers and trends: Market dynamics

Importance of **monetization of BW consumption** when coincidence of high speeds and high dispersion between consumers consumption

- High increase of **video applications** on fixed and mobile applications (today is the dominant application)
- Smart mobile phones, Tablets and PCs increase the demand and in approximate **(x20)** in transport traffic and up to **(x10)** in signaling

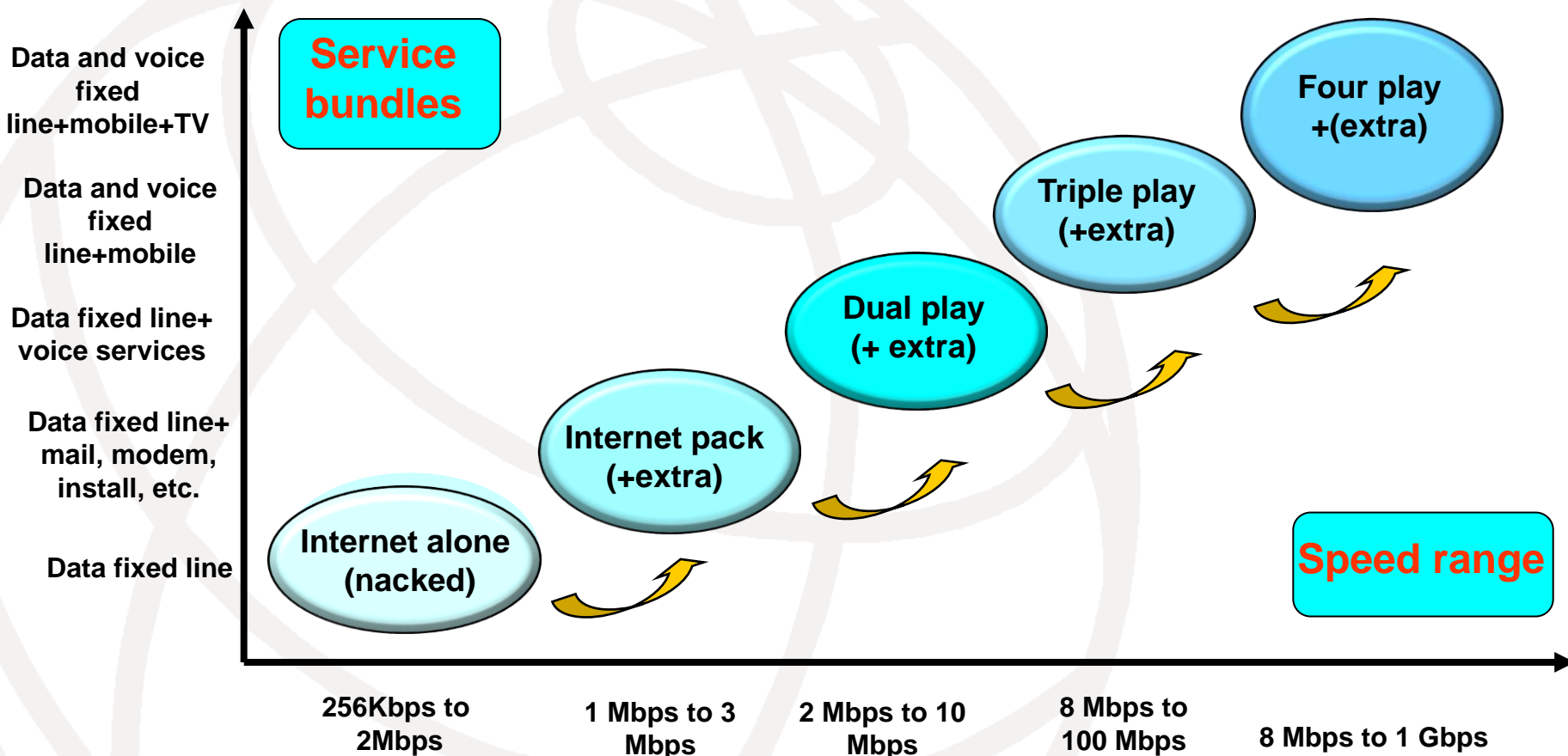
Need for **policy based services management** at network operation, attenuate busy periods and at charging procedures to avoid congestion and reach fairness

Service bundling offers and trends: Market dynamics



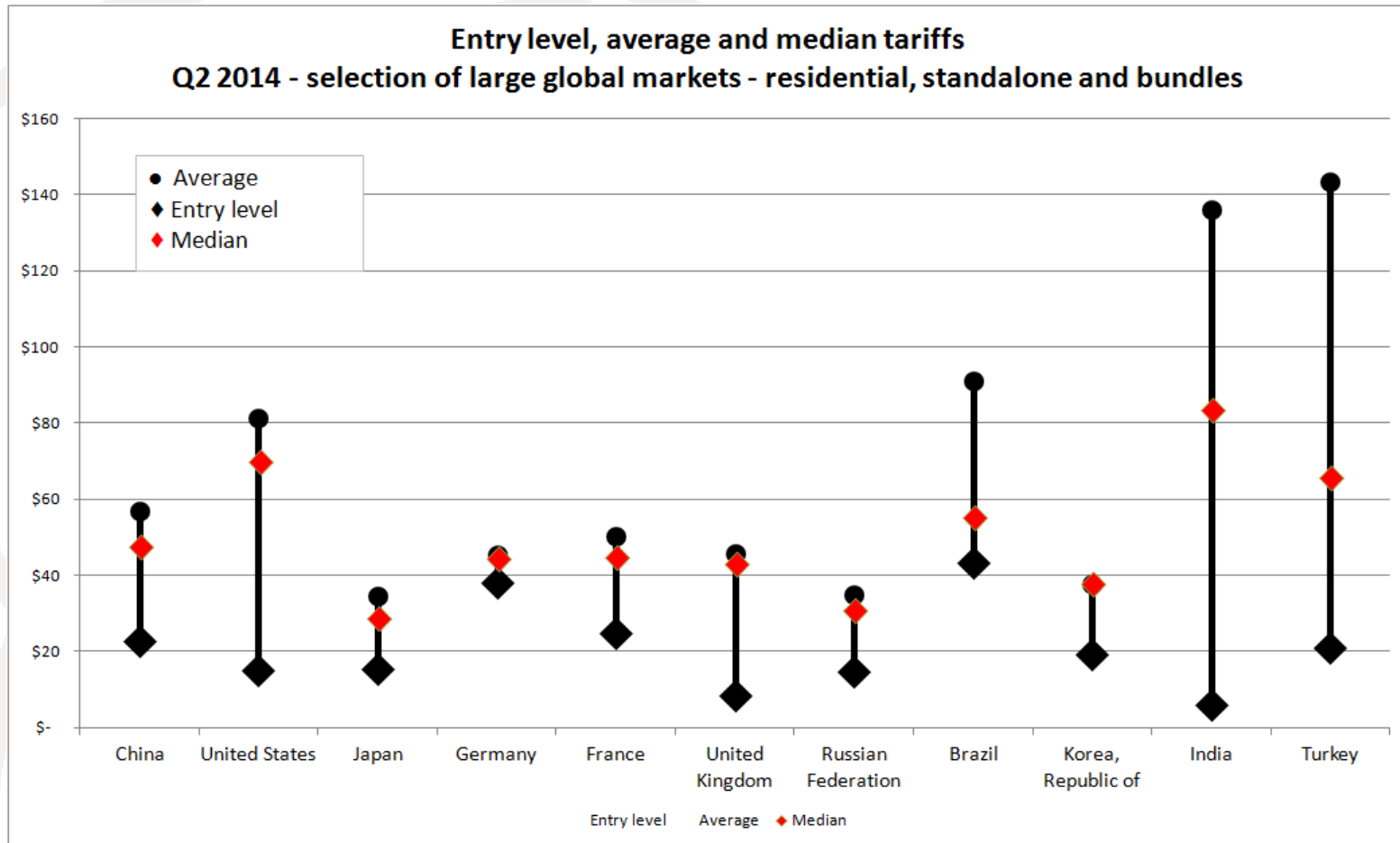
- Actions to ensure profitability in high consumption demands
- **Active role of intelligent charging and bundling**

Service bundling offers and trends: Historical evolution



Extra offers are very diverse: Installation package, mail, minutes of conversation at fixed or mobile, TV packages, security, storage, etc.

Service bundling offers and trends: Variety of offer types



(Source: Point topic)

It is observed a large variety of dispersion among entry level and average offers per country

Service bundling offers and trends: Bundle elements

Main offer elements	Typical cases
Connectivity	- xDSL, FO, Radio
Fixed voice services	- Voice at Digital quality, High quality - Value added services
Mobile services	- Voice, SMS, Data at 3G, 4G speeds - Data volume from 100 Mb to 1 Gb and unlimited
Fixed Internet services	- Speeds from 512 Kbps up to 100 Mbps and 1 Gbps
TV services	- Basic channels up to more than 100 channels, live events and content on demand
Others	- Minutes of conversation for fixed and mobile since fixed minutes to unlimited for national calls and also for selected international countries, security, etc.

Service bundling offers and trends: Sample case: PLDT Philippines

PLDT Home	Offer content	Prices (USD/month)
Triple play: Plan 1899	-Connectivity: xDSL, -IFixed voice unlimited minutes landline -Internet at 3.5 Mbps unlimited volume -TVo MSF	42,7
Triple play: Plan 2899	-Connectivity: xDSL, -IFixed voice unlimited minutes landline -Internet at 5.5 Mbps unlimited volume -TVo MSF	65
Triple play: Plan 3899	-Connectivity: xDSL, -IFixed voice unlimited minutes landline -Internet at 8.5 Mbps unlimited volume -TVo MSF	87

Currency change at July 2014

Service bundling offers and trends: Sample case: Indonesia

Max3 Internet cable TV	Offer content	Prices (USD/ month)
Double play Family package	-Connectivity: HFC cable -Internet at 5 Mbps unlimited volume -TV channels: 58 SD and 20 HD	42,8
Double play Theater package	-Connectivity: HFC cable -Internet at 10 Mbps unlimited volume -TV channels: 65 SD and 27 HD	85,5

Currency change at July 2014

Service bundling offers and trends: Sample case: Malaysia

TM Unify Home fiber	Offer content	Prices (USD/month)
Triple play VIP 5	<ul style="list-style-type: none"> -Connectivity: FO -Internet at 5 Mbps unlimited volume -Free phone service -TV channels: Selected HYPPTV 	46,3
Triple play VIP 10	<ul style="list-style-type: none"> Connectivity: FO -Internet at 10 Mbps unlimited volume - Free phone service -TV channels: Selected HYPPTV 	61,8
Triple play VIP 20	<ul style="list-style-type: none"> Connectivity: FO -Internet at 20 Mbps unlimited volume - Free phone service -TV channels: Selected HYPPTV and TV sports 	77,3

Currency change at July 2014

Service bundling offers and trends: Sample case: Singapore

SingTel bundle	Offer content	Prices (USD/month)
Triple play	<ul style="list-style-type: none"> -Connectivity: FO -Fixed voice with unlimited local calls -Home BB internet at 200 Mbps up to 40 GB month -TV family package with more than 50 channels 	39
Four play	<ul style="list-style-type: none"> -Connectivity: FO -Fixed voice with unlimited local calls -Mobile plan 150 Mb -Home BB internet at 300 Mbps -TV family package with more than 50 channels 	47
Four play	<ul style="list-style-type: none"> -Connectivity: FO -Fixed voice with unlimited local calls -Mobile plan 150 Mb -Home BB internet at 500 Mbps -TV Family package with more than 50 channels -Security suite 	63,5

Currency change at July 2014

Service bundling offers and trends: Sample case: Japan

KDDI bundle	Offer content	Prices (USD/month)
Triple play: Mansion plan for higher housing grouping	<ul style="list-style-type: none"> -Connectivity: FO -Fixed voice with free calls in promotion period -Home BB internet at 1 Gbps -TV HD Hikari package with more than 80 channels and optionally premium video , Karaoke, etc. 	58
Triple play: Home plan: for lower housing grouping	<ul style="list-style-type: none"> -Connectivity: FO -Fixed voice with free calls in promotion period -Home BB internet at 1Gbps -TV HD Hikari package with more than 80 channels and optionally premium video , Karaoke, etc. 	70,8
		Currency change at July 2014

Service bundling offers and trends: Sample case: Movistar in Spain

Movistar fusion	Offer content	Prices (USD/month)
Four play "Contigo 10"	<ul style="list-style-type: none"> -Connectivity: xDSL, Radio 4G -Fixed voice unlimited minutes national and internet at 10 Mbps unlimited volume -Mobile voice with 100 minute free and data up to 100 Mb -Basic TV channels 	56,7 (tax inc)
Four play "Contigo 100"	<ul style="list-style-type: none"> -Connectivity: FO, Radio 4G -Fixed voice unlimited minutes national and internet at 100 Mbps unlimited volume -Mobile voice with 100 minute free and data up to 100 Mb -Extended TV channels 	72,8 (tax inc)
Four play "Para todos"	<ul style="list-style-type: none"> -Connectivity: FO, Radio 4G -Fixed voice unlimited minutes national and internet at 100 Mbps unlimited volume -Mobile voice unlimited minutes and data up to 1 Gb -More than 80 TV channels, recording and live events 	97 (tax inc)

Currency change at July 2014

Service bundling offers and trends: Benefits as perceived by consumers

- Significant saving in price for the overall set of services (typical: between 10% and 30%)
- Just one bill to pay and control
- Single contact point for customer support
- Additional benefits like mobile bounds, storage memory, minutes of conversation, cloud services, etc.

Main Outcomes

- Major revolution in the ICT due to **new technologies** and competition level
 - Great influence of **economy of scale**: from proportional prices per speed to incremental prices
 - **Cost reduction of offers** in several orders of magnitude in the last decade due to network Optimization and Regulation
 - Significant savings of multiservice and bundle offers for operators and for consumers: **Applied for customer loyalty**

International Telecommunication Union

Committed to connecting the world