

## 出國報告（出國類別：會議）

# 出席臺捷通訊傳播雙邊交流合作會議

服務機關：國家通訊傳播委員會

姓名職稱：虞副主任委員孝成

綜合規劃處蔡處長炳煌

綜合規劃處黃科長天陽

派赴國家：捷克

出國期間：102 年 11 月 6 日至 11 月 11 日

報告日期：103 年 1 月 24 日

## 摘 要

為持續增進與捷克電信監理辦公室(Czech Telecommunication Office；以下簡稱 CTO)之交流，國家通訊傳播委員會（以下簡稱本會）虞副主任委員孝成率綜合規劃處同仁共 3 人，於 2013 年 11 月 6 日至 11 日期間，赴捷克首府布拉格（Prague;捷克語 Praha）進行雙邊交流活動。

本會繼 2011 年 9 月 6 日與 CTO 簽署「臺捷電信合作瞭解備忘錄」，隨後雙方即依備忘錄內容，於 2012 年 7 月與 CTO 時任主委(Mr.Pavel Dvorak)率團來臺拜訪進行雙邊交流，並特別於 2012 年 7 月 17 日舉辦 2012 臺捷電信政策研討會，以加強雙方通訊傳播監理發展與政策推動經驗。

為落實備忘錄深化雙方交流精神，適逢捷方 CTO 新任主委 Mr. Jaromír Novák 於 2013 年 5 月就職，且於 2013 年 8 月 15 日檢討啟動第 2 次 4G 競價程序；相對於我國已於 2013 年 10 月 30 日完成 4G 競價釋照；因此，藉由本次官方交流，向捷方 CTO 介紹 NCC 組織及委員，並主要分享我國通傳產業發展及 4G 行動寬頻釋照成果等。CTO 也介紹該國市場近況、4G 釋照最新發展，以及歐盟接續費等監理經驗，雙方互動融洽，收穫豐富。

本會除拜會 CTO 外，並參訪捷克主要電信業者西班牙電信集團-捷克電信公司 (Telefónica Czech)，就當前產業趨勢、市場發展等事項廣泛交換意見；訪問期間，在駐捷克代表處薛美瑜代表、經濟組吳建邦組長及陳大明秘書等同仁之周妥協助安排下，交流活動圓滿順利，特此申謝。

未來本會將透過持續的強化雙邊交流，除與國外通訊傳播機構建立友誼關係外，並進而擷取他國政策及監理措施之優點，據以提升我國通訊傳播服務監理效能，促進通傳產業發展。

# 目 次

壹、目的 .....	1
貳、捷克國情簡介.....	3
參、交流行程與拜訪機關(構)介紹.....	4
一、行程概要 .....	4
二、捷克電信監理辦公室(Czech Telecommunication Office;CTO) 簡介.....	5
三、西班牙電信集團捷克電信公司(Telefónica Czech) 簡介 .	7
肆、會議紀要 .....	8
一、捷克電信監理辦公室 .....	8
三、西班牙電信集團捷克電信公司(Telefónica Czech) .....	13
伍、心得及建議 .....	18
陸、相關附件 .....	20
附件一：雙邊交流活動剪影	
附件二：捷方 CTO 簡報資料	
附件三：Telefónica CZ 相關簡報資料	

## 壹、目的

國家通訊傳播委員會（以下簡稱本會）2011 年 9 月 6 日與捷克電信監理辦公室簽署「台捷電信合作瞭解備忘錄」，此係我國 NCC 首度與歐洲國家簽訂電信合作瞭解備忘錄，雙方以正式國名及官方職銜簽署。雙方將基於平等、互惠與互利原則，藉由資訊交換、人員互訪及聯合計畫等方式加強合作關係，為臺捷雙邊通訊監理合作奠定基礎，並約定持續雙方的深化交流，汲取寶貴監理經驗。

其後雙方即依備忘錄內容，於 2012 年 7 月 CTO 率團來臺拜訪進行雙邊交流，本會也特別於 2012 年 7 月 17 日舉辦 2012 臺捷電信政策研討會，邀請產官學界共同參與，基於各自之法規及職權，共同合作推動通訊傳播之發展，加強雙方通訊傳播監理發展與政策推動經驗分享。

因此在平等、互惠與互利原則下，持續進行本次交流合作會議，由虞副主任委員孝成率綜合規劃處蔡處長炳煌及黃科長天陽共 3 人於 2013 年 11 月 6 日至 11 日期間，赴捷克首府布拉格進行交流互訪，特別感謝在駐捷克代表處薛美瑜代表、經濟組吳建邦組長及陳大明秘書等同仁之周妥協助安排下，與電信監理主管機關 CTO 進行雙邊互訪之交流會議，並參訪該國主要的通訊傳播業者，加強雙方通訊傳播監理發展成果分享與交換匯流趨勢之看法。

CTO 於 2013 年 5 月新任主委為 Mr. Jaromír Novák，並且捷方 CTO 復於 2013 年 8 月 15 日檢討修正競價規則，再次公告啟動第 2 次競價程序；相對我國已於 2013 年 10 月 30 日順利完成 4G 競價釋照。因此，本次交流會議主要議題包括：介紹 NCC 組織與功能、分享我國通傳產業發展近況，以及 4G 行動寬頻釋照成果等。CTO 也報告該國市場概況、4G 釋照最新發展，以及歐盟接續費管制經驗等，收穫豐富，雙方互動融洽。

本次交流之主要效益，除可強化我方與捷克以及歐盟通訊傳播監理方向及市場之深

入瞭解，亦就我國推動相關政策、法規及市場發展等經驗，積極與捷克分享，有利於雙方通訊傳播之進一步發展，同時藉由官方交流合作之平台，展現我與國際通訊傳播同儕機關協力合作之意願；未來仍將秉持備忘錄之合作本質，加強我國與捷克更深層互動與交流，進而以軟性外交促進兩國邦誼。

## 貳、捷克國情簡介

捷克屬於歐洲中部內陸國家，北鄰波蘭，東接斯洛伐克，南鄰奧地利，西與西北與德國接壤，二次世界大戰後由共產黨統治，原與斯洛伐克同屬捷克斯洛伐克社會主義共和國(Czechoslovak Socialist Republic)，1968 年「布拉格之春」運動旋即受到蘇聯華沙集團聯軍於入侵鎮壓；1989 年 11 月捷克民間大規模之示威運動，迫使朝向民主化發展，12 月 29 日聯邦國會選舉哈維爾為總統，其後數月快速進行民主改革「絲絨革命」(Velvet Revolution)。其後由於斯洛伐克要求政治及經濟地位平等，1993 年起分裂分別獨立為兩個國家。捷克於 1993 年 1 月 19 日加入聯合國，國土面積 7 萬 8,866 平方公里，約為臺灣的 2.17 倍，首都為布拉格，是一個具有歷史與文化的城市。該國 2012 年平均國民所得(GDP per capital)為 18,675 美元，人口約為 1500 萬餘人。

我國台商自 1995 年開始赴捷克投資，主要考量其於歐洲地理中心位置及較便宜技術勞工之便，多為資通訊產業，包括鴻海、友達光電、華碩電腦、宏碁等，設立組裝廠或設立資通訊產品維修中心、客服中心、發貨據點、銷售據點。



圖 1 捷克電信監理辦公室

## 參、交流行程與拜訪機關(構)介紹

### 一、行程概要

本次前往捷克出席雙邊交流合作會議，出國期間自台北時間 2013 年 11 月 6 日至 11 月 11 日止，行程如下：

日期	活動內容
11 月 6 日	(啟程) 下午 11:35 於桃園國際機場第一航廈搭乘長榮航空。 【地點：台北 → 法國戴高樂機場】
11 月 7 日	1.上午 8 時於法國巴黎國際機場，轉乘奧地利航空抵達捷克布拉格。 2.下午 2 時參訪西班牙電信集團捷克電信公司(Telefónica Czech) 【地點：法國戴高樂機場→捷克布拉格】
11 月 8、9 日	1.拜會捷克電信監理辦公室雙邊交流會議。 2.與當地代表處交流。 【地點：捷克布拉格】
11 月 10 日	(返程) 1. 上午 8 時搭乘奧地利航空，抵達奧地利維也納機場。 2. 轉乘中華航空回桃園機場。 【地點：捷克布拉格→奧地利維也納機場】
11 月 11 日	上午 6 時抵達桃園機場 【地點：奧地利維也納機場→台北】

## 二、捷克電信監理辦公室(Czech Telecommunication

### Office;CTO) 簡介

捷克電信監理辦公室，負責掌理包含該國電子通信服務及郵政服務的行政監督及管理，並維護市場健全運作，兼顧保護消費者權益，以達成充分競爭的環境，也兼辦該國廣播電視技術規劃以及資訊社會部分政策之推動。

CTO 於 2005 年配合歐盟 2003 年電信監理改革，通過修訂電子通訊法( Electronic Communications Act ) 等相關法案，確立電信監理辦公室(Czech Telecommunication Office;CTO)，具有分配預算獨立權，以作為負責電信及郵政服務監理及市場秩序維護的主管機關；CTO 組織主要包含委員會、法律事務部門、國際交流與公共關係、綜合企劃部門、電子通信技術審驗部門、電子通信及郵政監理部門、市場經濟分析部門、頻譜管理事務部門等，並於該國各地區等設有 7 個分支機構等，以利監理業務之推動(如圖 2)。

現行的 5 位委員包含主任委員，係由該國工業及貿易部所提名，經捷克政府任命，任期 5 年，為利業務銜接委員採交錯制，現任主委為 Mr. Jaromír Novák，曾為 2012 年期間之委員，並於 2013 年 5 月獲得提名後任命。

# ORGANIZAČNÍ STRUKTURA ČESKÉHO TELEKOMUNIKAČNÍHO ÚŘADU

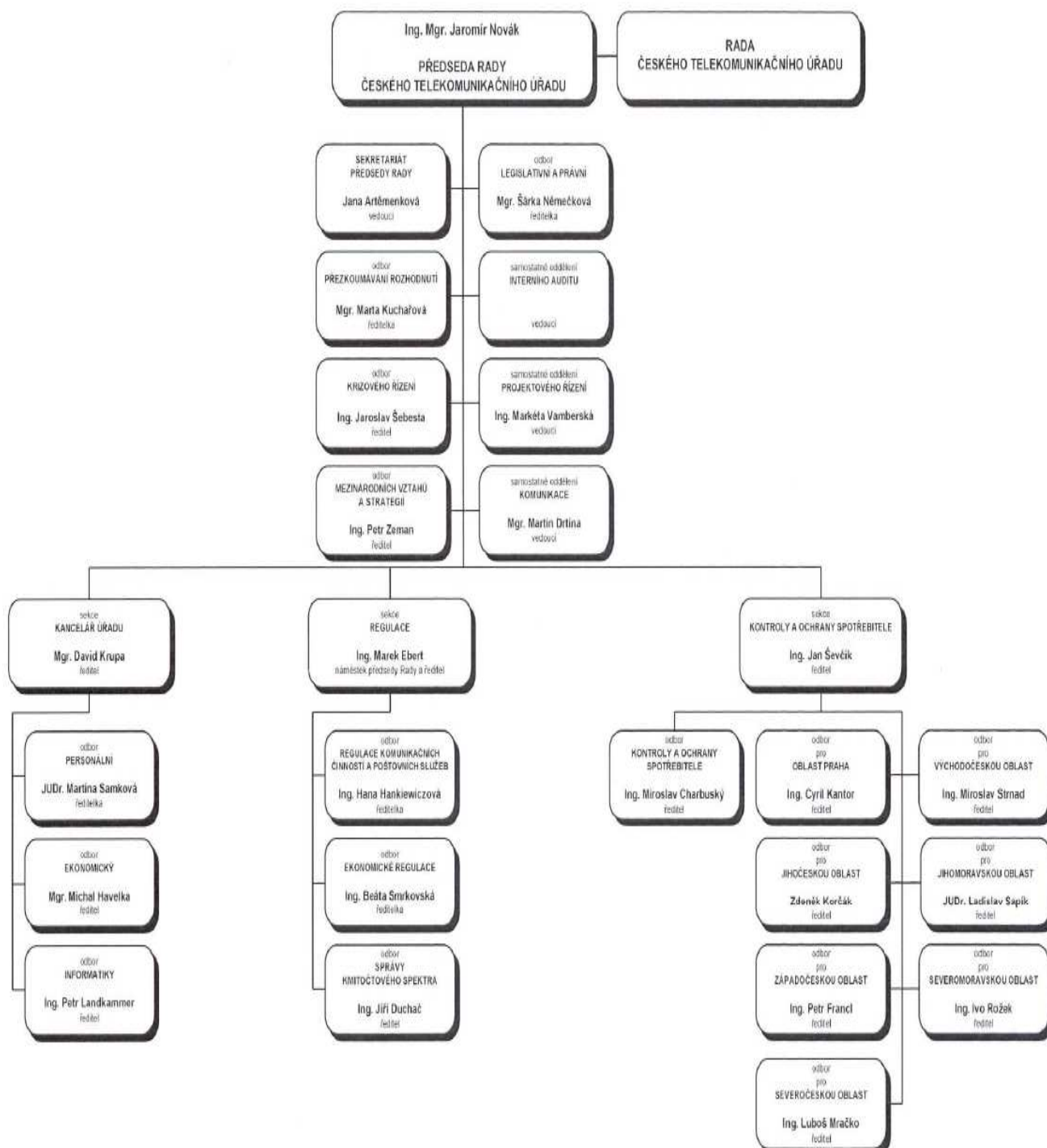


圖 2 捷克電信監理辦公室組織架構

### 三、西班牙電信集團捷克電信公司(Telefónica Czech) 簡介

西班牙電信公司 Telefónica 集團，係屬全球跨國電信網路集團，在全球 25 個國家投資資訊、電信業務，全球客戶總計 3 億 1200 萬。

其中旗下行動通信公司於全球分別以 3 個品牌經營，如西班牙及拉丁美洲國家之經營品牌為 Movistar；英國、愛爾蘭、德國、捷克及斯洛伐克等國經營品牌為 O2；於南美洲巴西的經營品牌為 vivo。

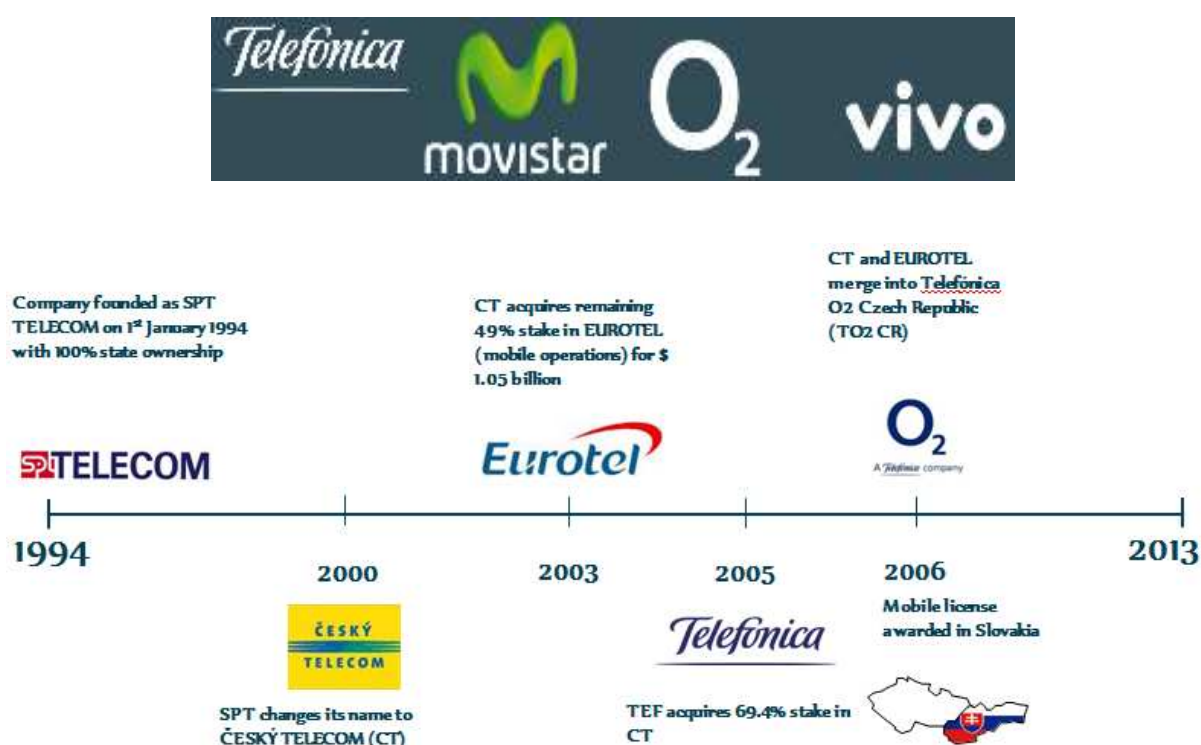


圖 3 西班牙電信集團及捷克電信公司(Telefónica Czech)簡介

Telefónica 集團旗下之捷克電信公司 (Telefónica Czech) 前身為 SPT TELECOM，於 2000 年更名為捷克電信(ČESKÝ TELECOM-CT)，2005 年 Telefónica 集團持股超過 69.4%，2005 年起以 O2 品牌經營行動通信服務，目前該集團於捷克自 2010 年起也開始經營 IPTV 之整合市話、行動、寬頻、視訊的四合一服務。

## 肆、會議紀要

### 一、捷克電信監理辦公室

(一) 日期：2013 年 11 月 8 日上午

(二) CTO 代表

Chairman：Mr. Jaromír Novák

Vice Chairman：Mr. Marek EBERT

Officer of Foreign and Public Relations：Ms. Naďa Páclová

Council member：Mr. Ondrej Filip 等人

(三) 我國駐捷克代表處

薛美瑜代表率經濟組吳建邦組長及陳大明秘書等同仁

(四) 會談重點內容

首先捷方 CTO 主任委員 Mr. Jaromir Novak 歡迎本團遠道而來，非常珍惜此次交流會議，於既有電信合作瞭解備忘錄基礎，增加兩國通傳產業監理之經驗分享。本會虞副主任委員則非常感謝 CTO 在平等、互惠與互利原則下安排本次交流合作會議，同時也感謝台北貿易經濟代表處薛代表及同仁細心安排協助，並表示我國與捷方在通訊傳播發展方面，面對數位匯流發展及 4G 競價釋照的重要過程，都有值得分享之處，也希望雙方經驗將更有助於產業發展與監理業務效能之升級。

虞副主任委員也親自簡報，內容包括：NCC 組織與職掌、我國通訊傳播產業

發展現況、4G 競價規劃及 4G 競價成果等。CTO 主委與同仁尤其對於我國 4G 競價規劃，感到高度興趣，雙方互動融洽，奠定合作與友誼的堅實基礎，相對也獲得捷方最新監理發展的寶貴經驗。最後，虞副主委也熱情邀請 CTO 主委明年來臺交流互訪。

以下謹就捷方說明該國通訊傳播服務市場及監理制度發展近況，包含固定網路、行動網路、語音接續費及 4G 競價等議題作重點介紹：

### 1、固網寬頻市場

2012 年捷克固網寬頻零售市場持續成長，最具代表採行的技術是 xDSL、WLL(如透過固網寬頻定點 WiFi)及光纖 FTTx 接取服務，共同占有約七成以上的寬頻接取市場(如圖 4)。



圖 4 捷克固網寬頻市場發展概況

西班牙電信集團捷克電信公司(Telefónica Czech)為固網寬頻接取市場具顯著地位者(SMP)，也開始提供 xDSL 批發服務，使得其他業者採用租用銅絞線用戶迴路(local loop unbundling)提供服務的比例逐漸下降。

## 2、行動網路市場

捷克自 2001 年固網語音用戶達到約 380 萬戶後，由於行動通信興起，至今不論是固網語音訊務量或用戶數均明顯下滑(圖 5)

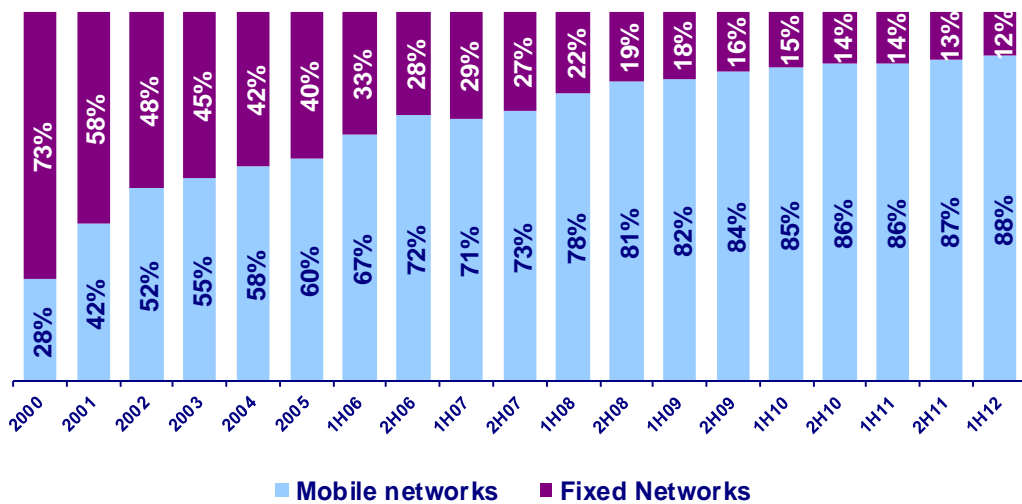


圖 5 固網及行動語音發話分鐘數消長變化

## 3、固網及行網語音接續費

捷克 CTO 原本在 2012 年 7 月已完成該國行動及固網語音接續費核定，並向歐盟發布通知，當時所核算的行動語音接續費，由每分鐘 2.2 歐分調降至 1.08 歐分(調降-51%)，固網語音接續費，其尖峰時間由每分鐘 1.36 歐分調降至 0.32 歐分(-76%)，離峰時間由每分鐘 0.68 歐分調降至 0.16 歐分(-76%)。

然而，隨後在 2012 年 12 月，歐盟執委會針對 CTO 固網語音接續措施草案發布質疑，於是 CTO 經過詳細研究歐盟監理組織(BEREC)建議撤銷其關於固網語音接續措施草案理由後，CTO 根據從其他競爭市話業者(OLO)所提供之數據研究，在訊務量變動的成本計算排除帳務系統主要部分，固網語音接續之計算組合僅考量到(尖峰/離峰期)的時間比例，以及網路互連點接續成本採取統一價格(市話交換局及長途與中繼電路間的差異忽略不計)，於是新的固網

語音接續費率比先前核算的結果再降低 60%，為每分鐘 0.12 歐分，且不將尖峰離峰時間分別計算，並於 2014 年上半年生效。

其後，2013 年 1 月至 2 月期間，該國電信事業不滿固網及行動語音接續費核定價格的規管，並向法院提起訴訟，其理由包含：質疑採行純長期增資成本法（Pure LRIC）的法律行為、至少包含成本考量(包括共同成本)如考量透過較緩和方式解決(採計加入適當的共同成本如 LRIC+)等，對產業衝擊才不致太大。

然 CTO 表示，歐盟執委會自 2012 年 1 月啟動第二階段調查，當時將捷克、荷蘭、德國等列入不配合(Naughty)的國家(非完全依據歐盟指導原則以 Pure LRIC 模型來計算接續費)。經過這些調查後，捷克政府基於歐盟體例一致性，強調固網及行動語音接續市場已被歐盟推論，滿足三個標準測試，如包含存在高度且非暫時性的進入障礙（結構、法律或法規）、經定期檢視市場結構仍不易趨向有效競爭及單獨倚賴競爭法不足以充分解決市場失靈情况等，故需要重新加以檢討；因此，CTO 核定接續費時，均採行歐盟執委會提出電子通信服務之相關產品和服務建議書之原則，以有效率的由下向上(bottom-up)之純長期增資成本法（Pure LRIC）的模型計算。

CTO 特別簡報說明，以歐盟執委會 2009 年 5 月 7 日提出對固定及行動接續費監管建議(2009/396/EC)之理念而言，採行純長期增資成本法來計算接續費，其回收成本堆疊還是維持不變(圖 6)，也是基於每個電信事業掌握 100% 的市場份額，而避免導致定價過高的可能性。

另外，歐盟互連(接取)指令第 13 條(2)規定，要求各監理機關(NRA)確保所規定的任何成本回收機制或定價方法的運用，必須基於提高效率、可持續競爭及最大化消費者利益只是將其轉移至各業者經營加以考量，並透過零售服務競爭以及效率提升回收成本。

電信事業通常沒有誘因來降低他們的批發接續成本，因為這些成本是從其他相對於零售服務的競爭對手所支付之費用來加以回收。此外，高接續成本可能阻止新進入者網路互連（也可能導致兩個或兩個以上業者間建立串謀行為）。因此，接續費計算有必要採以有效率及對稱式的管制，施加於所有的業者，以期降低至到一個有效率的費用。



圖 6 接續批發服務採有效率之長期增資成本

#### 4、4G 競價釋照議題

對於 4G 釋照議題交流部分，本會分別與捷方介紹我國競價制度、程序及頻率釋出的相關制度設計規劃，我國已於 10 月 30 日甫順利完成 4G 競價程序，最後總計 6 家業者得標。

相較之下，捷克 2013 年 3 月份公告取消 4G 頻譜拍賣，本會代表與捷方洽談後，進而瞭解原本捷克第 1 次競價時，當時因為競標者出價太高，競標金額已經超過 200 億克朗(CZK)超乎原先預期，且業者積極在 800MHz 頻段爭取

出價，且無停止上升的跡象，由於當時並未有關防止濫用 5 次撤標權的規定，造成競標金額超出原本設算不符理性預期且多次不當撤標，政府怕過高成本將會轉嫁到消費者身上，且撤標權規定過於寬鬆，並無相對罰則，爰於 2013 年 3 月 8 日決定取消第 1 次競價作業。捷克復於 2013 年 8 月 15 日檢討修正競價規則後，降低撤標權次數為 2 次，增加保留新進業者條件及處罰機制等規定後，再次公告啟動第 2 次競價程序，收件截止日期為 9 月 30 日。適值訪問期間，捷克 CTO 刻正進行競價說明會及模擬拍賣作業。並於 11 月 11 日進行第 2 次競價，隨後將於 11 月 20 日於網站上公布拍賣結果。

交流會議返國後，經持續追蹤捷克的 4G 拍賣競價結果，發現原本共有 4 家業者投件參與競價，分別為 Telefónica、T-Mobile 及 Vodafone 等 3 家主要行動通信業者，另有 1 家新進業者為 PPF 集團，經營版圖跨足營建業、金融業、保險業等，也有意參與競價。惟最後競價結果仍只有 3 家既有主要行動業者得標。

### **三、西班牙電信集團捷克電信公司(Telefónica Czech; Telefónica CZ)**

**(一) 日期：2013 年 11 月 7 日下午**

**(二) 西班牙電信集團捷克電信公司代表**

Director Strategy : Mr. Gustav Grundin

Director Regulatory Affairs : Mr. David Voska

Senior Manager Content Services (IPTV)、Product Management  
representative (TBC) : Mr. Dan Vondráček 等人

**(三) 會談重點內容**

## 1、固網及行網市場變化

本會與 Telefonica 捷克電信公司進行會談時，該公司指出因整體歐盟對於市場顯著地位者的矯正措施管制，包含語音接續費、批發服務及歐盟境內漫遊等管制之矯正措施，相當全面且強度非常高，形成市場高度競爭性，自 2008 年至 2013 年期間，行動網路營收，其年複合降幅約為-6%，固網營收年複合降幅約為-5%，形成用戶營收貢獻度(ARPU)減少(圖 7)，總產值成長較不如其他區域市場，如美國、拉丁美洲及亞洲市場等(圖 8)。

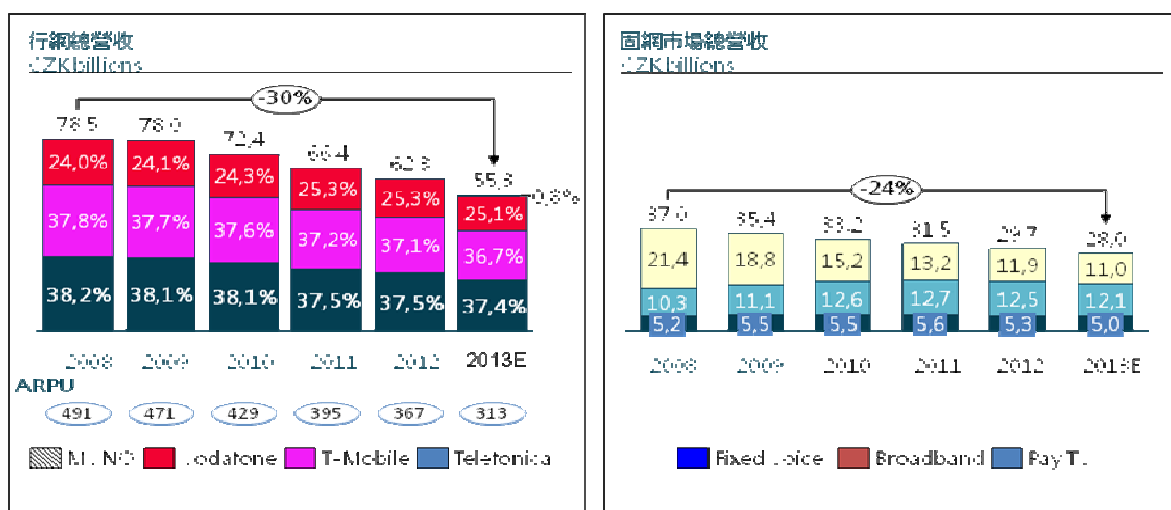


圖 7 Telefonica CZ 說明近年行網及固網市場營收變化

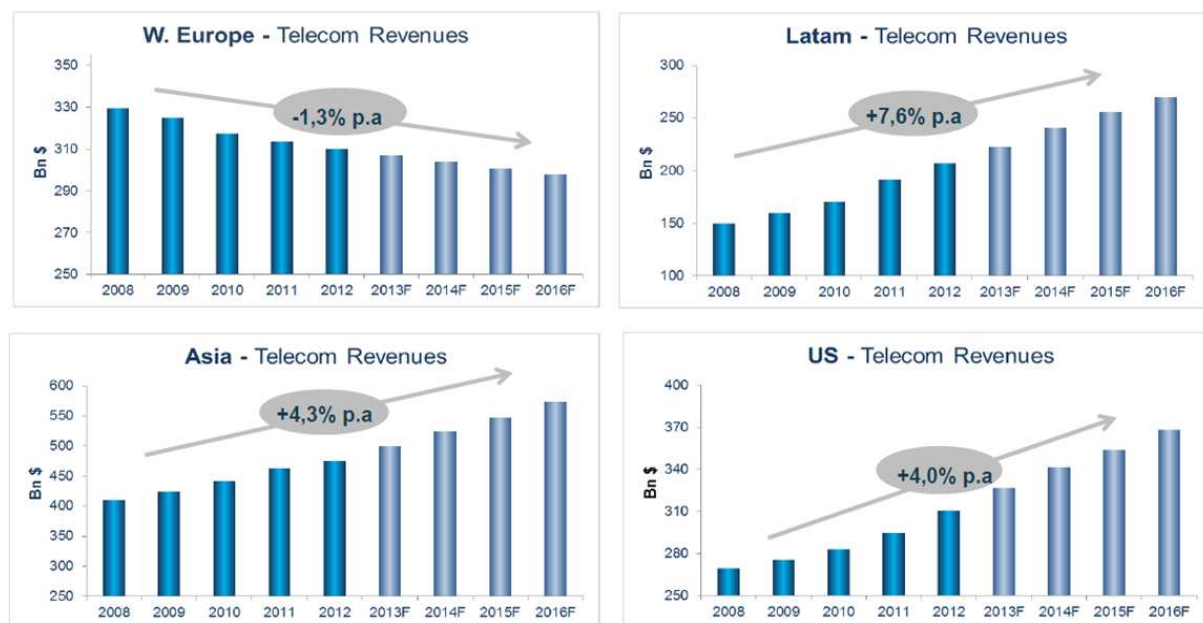


圖 8 Telefonica CZ 說明其他區域市場與西歐市場營收比較

又 **Telefónica CZ** 表示行動通信服務日漸普及，2010 年開始用戶普及率呈現飽和情形，且經統計新用戶增加情形，2011 年開始呈現負成長情況（圖 9）。

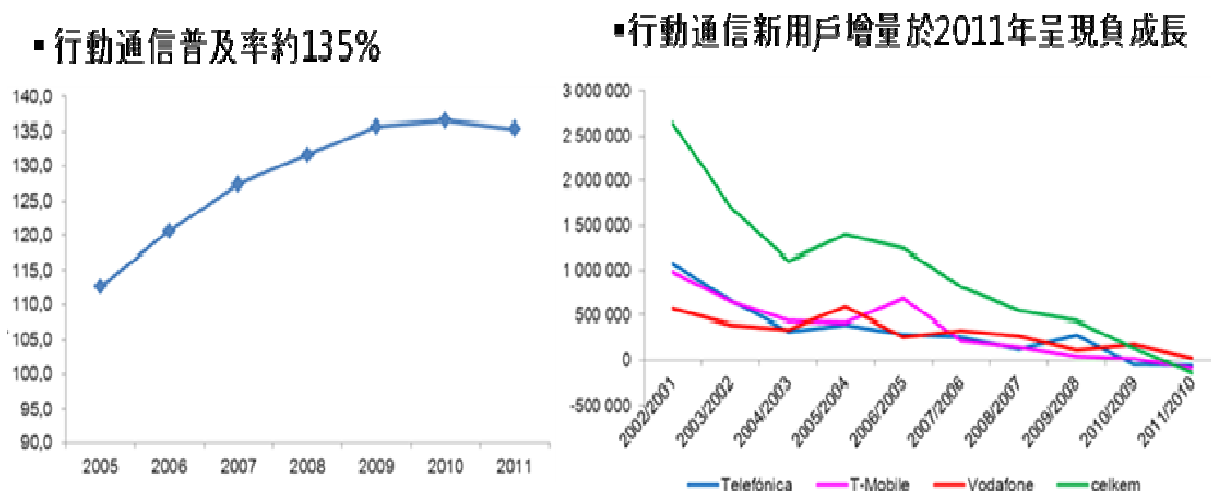


圖 9 Telefónica CZ 說明行動通信普及與用戶變化情形

就固網接取市場部分，該公司認為 **CTO** 順應歐盟監理機制對於光纖迴路出租要求過於嚴苛，認為於該國的全光纖網路佈設網路比例並不高，而卻也需要配合 **CTO** 及歐盟監理規範下，提出相關批發服務。

## 2、行動網路涵蓋普及

在促進行動網路佈建與普及推動上，**Telefónica CZ** 也特別說明，在與 **T-Mobile** 商業合作協議下進行之行動接取網路設施共享 (**Multi-Operator Radio Access Network; MORAN**) 經驗；該計劃運作了 3 年，經協商後特別選定人口密度較低的地點，共同建置分享約 1000 個基地臺，是歐洲第一個以 3G 網路服務積極提升彼此人口涵蓋率普及服務的方式，帶來普及涵蓋率、節省資本支出及營運效益之提升。

## 3、IPTV 服務

捷克自從 2009 年開始推動無線電視數位化至 2011 年 11 月完成數位轉換後，目前涵蓋率達到 93%，且經由數位壓縮技術而增加至 21 個數位無線頻道，以及網

際網路興起與既有免費的直播衛星電視(DTH)服務相競提供下，使得捷克的付費電視市場(包含有線電視、IPTV 及付費的直播衛星電視)的家戶市占率，自 2010 年第 4 季至 2013 年期間，些許微幅下降，由 38%降至 36%(圖 10)。

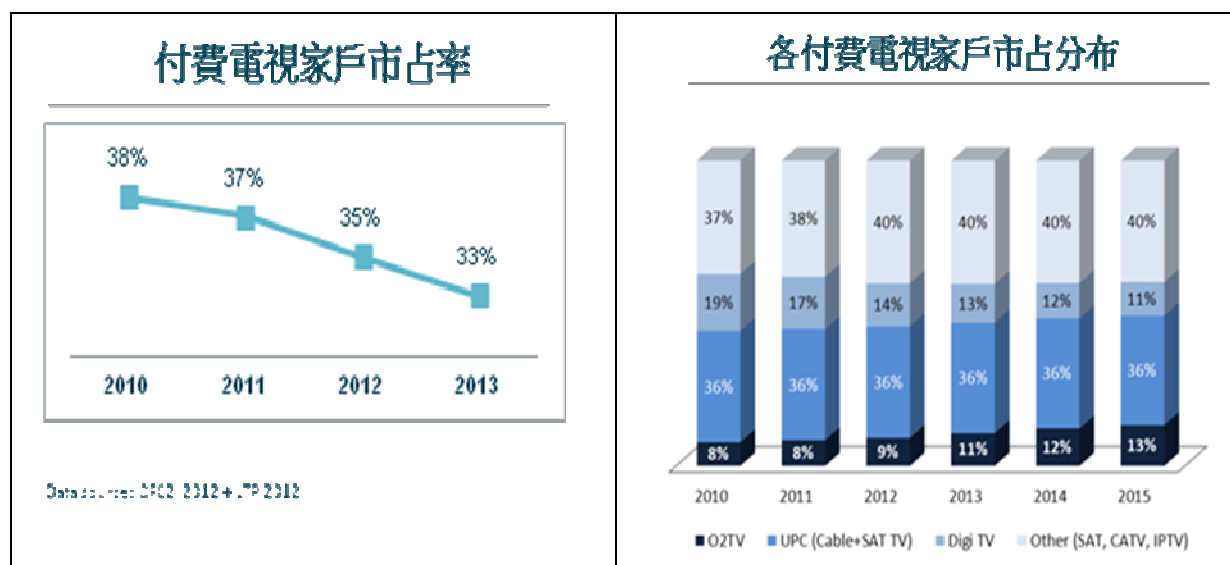


圖 10 Telefónica CZ 說明捷克付費電視樣態及市占率變化

該公司表示面對匯流時代考驗下，也觀察到寬頻服務競爭日益增加，形成平均用戶貢獻度(ARPU)緩降情形，而在既有固網寬頻服務優勢基礎上，也看到 IPTV 的機會，例如：新世代消費模式、互動需求的增加、高畫質服務、寬頻提升及 IPTV 技術升級等。Telefornica 表示，目前為確保提升營收穩定客源，該公司主要行銷策略採取寬頻+IPTV 服務的套裝組合(bundle)，也看到 2011 年漸進的成長，面對各種寬頻服務的競爭，IPTV 服務可視為帶動提升 VDSL 及網際網路市場的工具(圖 11)。

O2TV的用戶數成長情形(單位千戶)

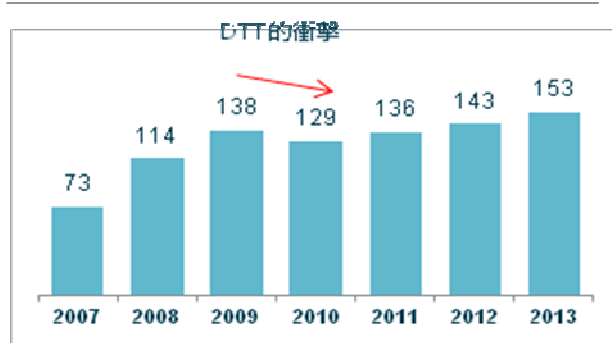


圖 11 Telefónica CZ 說明捷克付費電視樣態及市占率變化

藉由技術不斷推陳出新，該公司的 IPTV 服務讓消費者亦能透過網際網路的雲端多螢(Multi-Screen)技術，改變既有收視習慣，不只是在客廳的電視，也可以在房間的 PC 或行動裝置(如智慧手機、平板電腦)，隨時隨地收看喜歡的節目，以及各種視訊或加值套裝組合讓消費者選擇；此外，進階功能也提供可以錄影及時間平移功能(圖 12)。

### 新的IPTV平台展現獨特及行動性

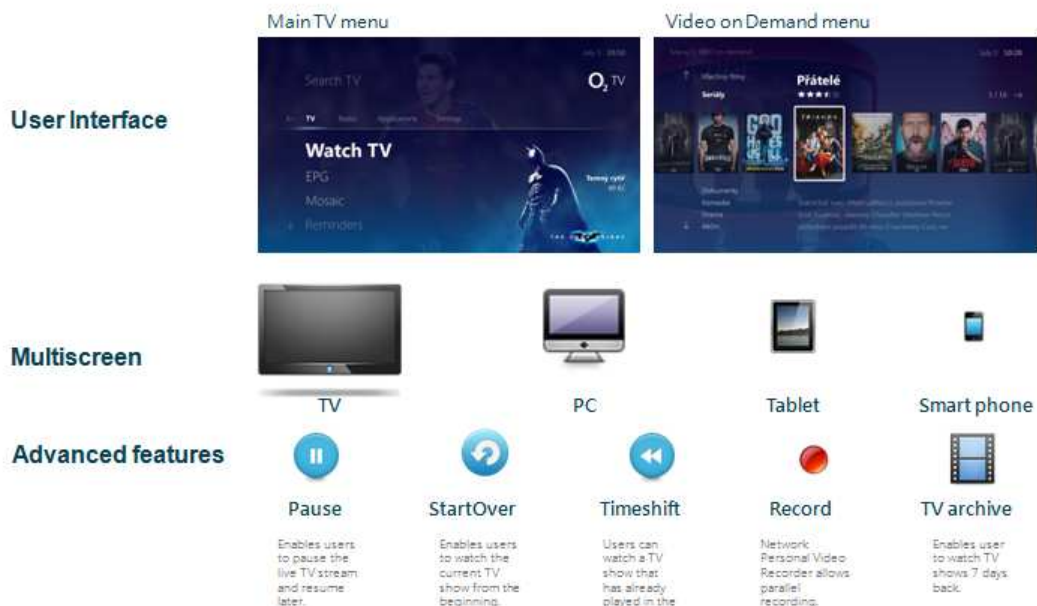


圖 12 Telefónica CZ 展示 O2 TV 的多螢服務

## 伍、心得及建議

### 一、捷克擁有歷史、民主及好客傳統，並善用科技發展數位內容

捷克是一個具有悠久歷史的歐陸國家，擁有歷史文化、許多古城及建築，在良好的民主傳統歷史底蘊下，該國能夠於短期間由共產計劃經濟轉型為民主市場經濟的變化，也都成功的過渡與發展，並接軌於歐盟經濟體制。

據我國代表處表示，我國自 2010 年 11 月起即與捷克建立雙方電子化政府實質合作關係，如近期我國資策會正與捷克及積極合作在博物館與古堡合作建置數位化導覽系統，正是兩國善用本身優勢相互合作的成功案例。

又雖然交流會議期間 CTO 恰巧辦理第 2 次 4G 釋照說明會事宜，理應工作繁重時刻，而交流活動過程仍明顯感受到 CTO 的細心安排，尤其 CTO 主委與重要幕僚仍熱情接待，展現周到好客的文化，讓人賓至如歸，值得本會接待外賓時學習。

### 二、雙邊交流合作會議獲益良多，增進雙方瞭解及穩固互動友誼

此行在「臺捷電信合作瞭解備忘錄」的基礎上，達到深化臺、捷兩國監理機關間之友誼，以及相關通訊傳播監理議題探討與資訊交流。

虞副主任委員此行也特別展現親和力，簡報介紹我國通傳產業最新發展情形以及 4G 競價成果，獲得捷克電信辦公室及該國電信業者高度興趣，雙方互動融洽，對電信議題交流之合作與友誼，奠定堅實基礎，相對也獲得歐盟監理制度最新發展的寶貴經驗。

然而，尚有許多議題，囿於時間因素無法深入討論。未來期能持續發展臺捷雙方互動模式，增加彼此的友誼及互動之經驗分享。

### 三、歐盟在單一市場及促進競爭架構下，落實電信市場管制措施

歐盟執委會繼 2013 年 9 月提出電信改革修正案，期待加速建立歐盟電信服務單一市場，以促進競爭為導向，以持續加快經濟增長，創造就業機會和恢復歐洲在通訊技術領域的領先地位。

本次交流會議，也進一步深入瞭解，捷克身為歐盟會員國之一，該國也曾就與歐盟採取不同意見時，最後必須服膺歐盟相關指令及歐盟執委會的決議，CTO 並就相關批發服務管制，提出其管制背景及考量因素之精闢說明，包含接續費率之調整、歐盟行動漫遊調降、成本計價模型之建立及號碼可攜制度之實施，獲得更深入的監理原理及經驗交換。

### 四、監理政策需全面綜觀產業發展及消費者長遠福祉

鑑於歐盟在單一市場架構下發展，相對上也發展許多跨境服務的電信事業，採取一致性管制核心及強度，也避免產業發生管制套利或形成貿易流通之壁壘。雖然，於捷克 4G 競價結果看出，仍由市場主要三家業者獲得頻譜，雖然呈現與我國不同風貌，但是相對上如何持續促進或維繫競爭程度，都是監理政策重要的課題。

另一方面，由於科技發展變化快速，在捷克與我國電信市場都獲得印證，傳統固網語音比重逐漸下滑，智慧手機、Facebook、Line 及 Skype 等軟體獲得青睞，顯見逐朝行動數據寬頻發展；電信產業也積極發展 IPTV 視訊服務，讓傳播與電信界線日益模糊，也助長寬頻發展；而固網最後一哩，也似乎開始與行動寬頻、有線電視上網、Wifi 服務等形成部分替代或互補效果。因此，監理制度的推動，必須透過綜合的客觀分析，才能契合產業發展脈動，也要同時鼓勵新興服務及維持寬頻技術提升，才能提供消費者多元的選擇，維繫消費者長遠福祉。

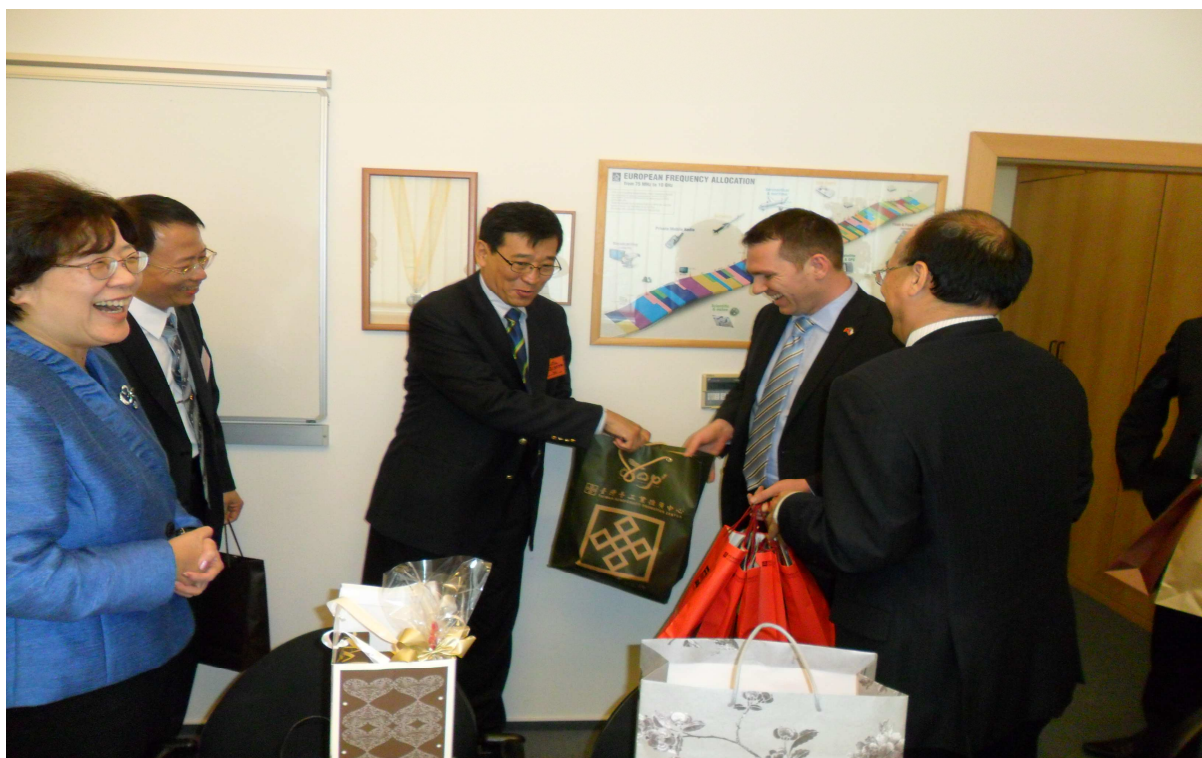
## 陸、相關附件

### 附件一：雙邊交流活動剪影



**臺捷雙方人員於CTO合影留念**

左3為薛代表美瑜、左4為本會虞副主委孝成、左5為捷克CTO主委Mr. Jaromír Novák、左6為副主委Mr. Marek EBERT



本會虞副主委與捷克CTO主委Mr. Jaromír Novák互贈紀念品



本會虞副主委親自介紹我國通傳發展及4G競價成果



CTO代表向本會簡報說明近期該國監理發展情形



本會虞副主委、本會代表與Telefónica CZ主管合影留念

上排左1為Telefónica CZ法務部門Mr. David Voska、左2為策略發展部門Mr. Gustav Grundin、左3為本會虞副主委孝成、左4為薛代表美瑜



Telefónica CZ向本會介紹該集團IPTV發展情況



本會虞副主委與Telefónica CZ交流互動熱烈

## 附件二：捷方 CTO 簡報資料

### **附件三：Telefónica CZ 相關簡報資料**

# TERMINATION RATES



PAVEL ŠUBRT  
CZECH TELECOMMUNICATION OFFICE



Prague, November 8, 2013

- Termination rates generally - rationale for regulation
- Historical evolution of methods used for calculation of TR in the EU
- EC Recommendation on TR in the EU - why is pure LRIC considered to be the best regulatory approach
- CTU's way to regulate TR (methodology, legal actions against price decisions)
- Experience of other EU countries - „Naughty“ countries (who disobey Recommendation) and EC reaction
- Phase II investigations and what have we learnt (NED, CZ, GER)
- Regulatory consequences stemming from pure LRIC TR

## Fixed and Mobile Termination Rates



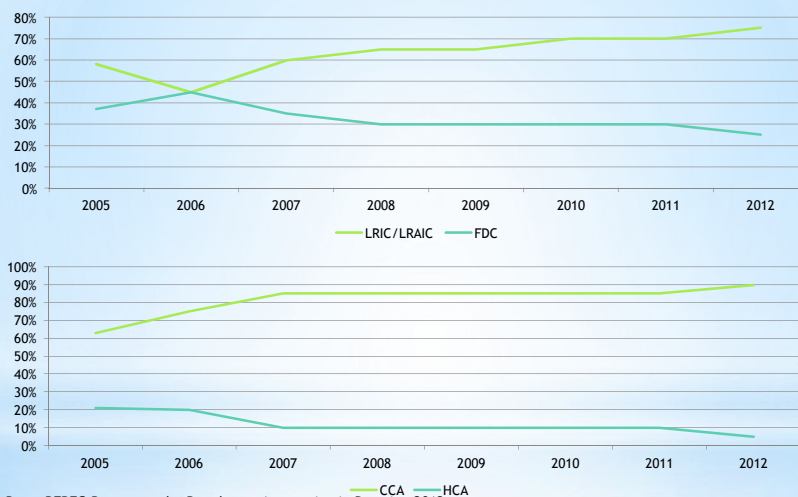
### Termination rates generally - rationale for regulation

- Both fixed and mobile termination markets are supposed to be susceptible to ex-ante regulation, i.e. that fulfil so called three criteria test
  - the presence of high and non-transitory barriers to entry (structural, legal or regulatory nature)
  - a market structure which does not tend towards effective competition within the relevant time horizon (the application of this criterion involves examining the state of competition behind the barriers to entry)
  - the insufficiency of competition law alone to adequately address the market failure(s) concerned
- This has consequently led to inclusion of these markets (relevant market 3 for FTR and relevant market 7 for MTR) into the EC Recommendation on relevant product and service market within the electronic communications sector (C(2007) 5406 rev 1)
- Each operator has dominant position in its own network and is subsequently believed to be able to abuse this position and behave in anti-competitive way
- Theoretically, there are constraints influencing operators' behavior, i.e. their ability to behave independently of other market players and users - possible supply and demand side substitution (for fixed based services possibility to terminate through mobile network or vice versa, VoIP etc.) but so far these constraints have not been regarded to be strong enough to discipline operators' behavior
- Further development is still open - EC Recommendation on relevant product and service market within the electronic communications sector is currently being rebuilt and stakeholders are taking the chance to comment on the future shape of termination markets (proposals ranging from complete cancellation due to OTT applications to simplifications of markets analysis and simplified process for remedies imposition)
- 2 September 2013 - Finish regulator FICORA proposed to deregulate market 3 and sent this proposal to notification to the European Commission (reason - mobile and VoIP substitutes)
- Currently, the major competition issue arising from 100% market share is excessive price charged initially at the wholesale level and subsequently also on the associated retail (downstream) market to the detriment of final users

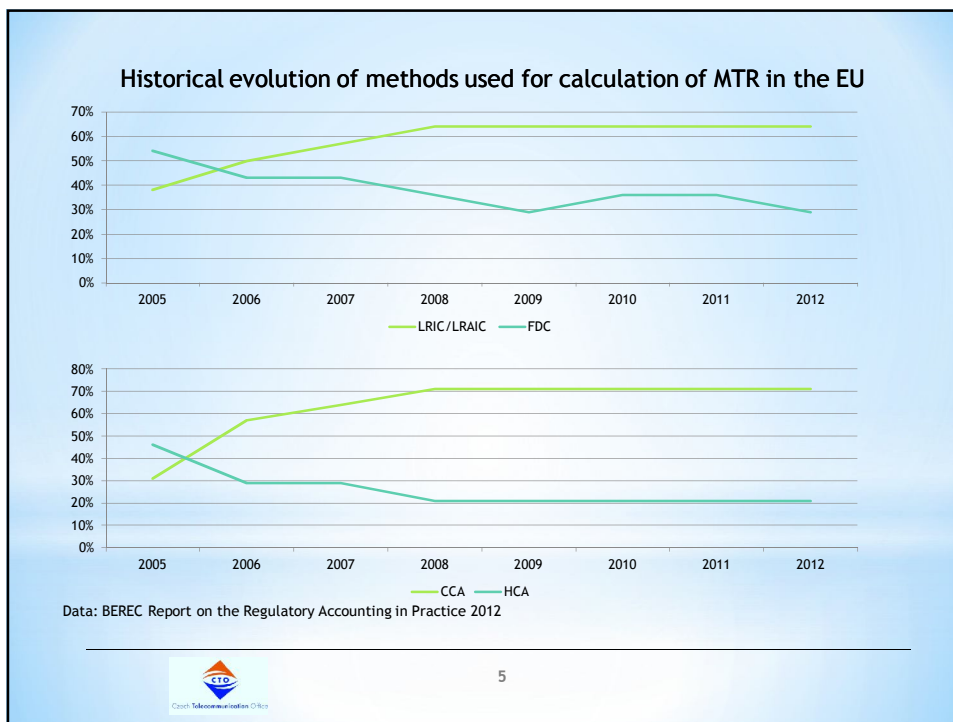


3

### Historical evolution of methods used for calculation of FTR in the EU



4



### EC Recommendation on TR in the EU - why is pure LRIC considered to be the best regulatory approach



- Commission Recommendation of 7 May 2009 on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU (2009/396/EC)
- As stated previously - the main reason for regulatory intervention is 100% market shares of each operator in its own network and resulting possibility of excessive pricing
- Article 13(2) of the Access Directive requires NRA to ensure that any cost recovery mechanism or pricing methodology that is mandated serves to promote efficiency and sustainable competition and maximize consumer benefits
- These goals on termination markets should be reached by
  - Evaluation of efficient costs based on current cost and the use of a bottom-up modelling approach using long-run incremental costs (LRIC) as the relevant cost methodology
  - Imposing these efficient TR symmetrically on all SMP

### EC Recommendation on TR in the EU - why is pure LRIC considered to be the best regulatory approach

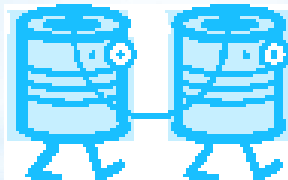
- Another competition problem mentioned beside the excessive pricing is possible cross-subsidization
  - from fixed to mobile networks as MTR used to contain also access network costs while fixed operators recover access network costs (local loop) via retail subscription
  - from new entrants to established operators as those former mentioned have usually larger proportion of traffic terminated on other networks (more off-net calls)
- Operators do not have incentives to lower their wholesale termination costs as these costs are recovered from other operators, i.e. their retail competitors. Moreover, high termination costs may foreclose a new entrant network (possibly also with collusive behavior between two or more established operators)
- Therefore, there is a need to bring TR down to the costs of an efficient operator
- Termination is „two-way“ interconnection - both sides use wholesale services of the other party - this leads to possible usage of other payments methods than the CPP (Calling Party Pays) currently used in the EU - Bill and Keep possibly accompanied by retail charge for incoming calls in case the traffic between operators is not balanced
- Current costs are considered to be the cost base prevailing in a competitive market - current costs lead to lower TR (technological development) even though under historical costs principle some assets would already be depreciated and thus not included into calculation



7

### EC Recommendation on TR in the EU - why is pure LRIC considered to be the best regulatory approach

- LRIC is supposed to be the best allocation methodology as it is in principle consistent with economic theory (price equal to marginal costs) and allows to determine appropriate incremental service (wholesale termination) and its costs
- LRIC helps to avoid the above mentioned competition problems (not only excessive pricing but also cross-subsidization)
- As the call is established only after both calling and called parties agree to do so and both parties enjoy benefits from it, it would be in line with the cost-causation principle to jointly cover costs associated with the call. Therefore, receiving operator is free to cover costs also from own called user.



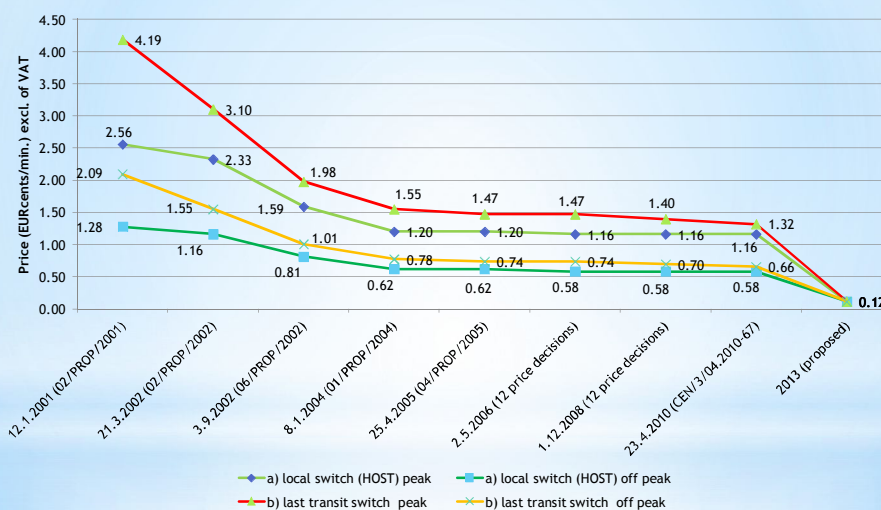
8

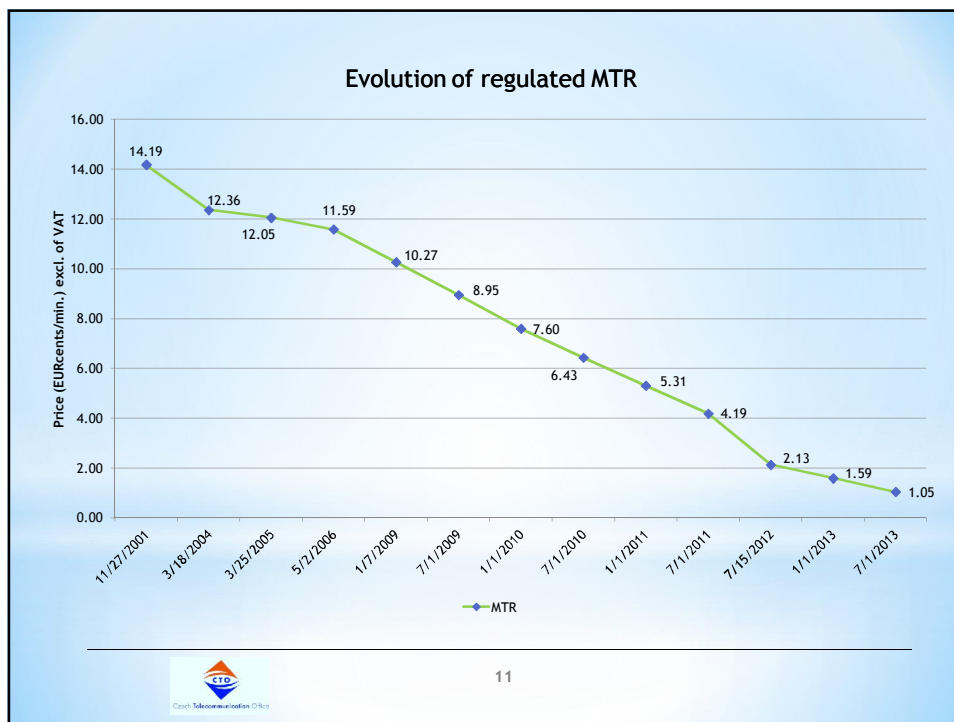
### CTU's way to regulate TR (methodology, legal actions against price decisions)



- Methodology:
  - FTR - from 2001 until 2013 - CCA BU-LRAIC (with mark-up for joint costs), from 2014 CCA (pure) BU-LRIC
  - MTR - from 2001 until the end of 2012 HCA FDC, from 2013 CCA (pure) BU-LRIC (with glide path reaching the pure LRIC price from 1 July, 2013)

### Evolution of regulated FTR





### Evolution of regulated FTR in chart

Termination with interconnection at	Traffic time	12.1.2001 (02/PROP/2001)	21.3.2002 (02/PROP/2002)	3.9.2002 (06/PROP/2002)	8.1.2004 (01/PROP/2004)	25.4.2005 (04/PROP/2005)	2.5.2006 (12) price decisions	1.12.2008 (12) price decisions	23.4.2010 (CEN/3/04.2010)	2013 (proposed)
a) local switch (HCST)	peak	0,0256	0,0233	0,0159	0,0120	0,0120	0,0116	0,0116	0,0116	0,0012
	off peak	0,0128	0,0116	0,0081	0,0062	0,0062	0,0058	0,0058	0,0058	0,0012
b) last transit switch	peak	0,0419	0,0310	0,0198	0,0155	0,0147	0,0147	0,0140	0,0132	0,0012
	off peak	0,0209	0,0155	0,0101	0,0078	0,0074	0,0074	0,0070	0,0066	0,0012

12

CTO  
Czech Telecommunications Office

### Legal actions against CTU's price decisions

- All three regulated mobile operators dissatisfied with the level of calculated MTR
- January - February 2013 - three legal actions against CTU's price decisions based on questioning the methodology used by CTU (pure LRIC)
- Operators object that Commission Recommendation on TR is not binding (Article 288 of the TFEU - Recommendations and opinions shall have no binding force)
- Pure LRIC methodology is not in line with legal requirement to set regulated price at least at costs (does not cover either joint or common costs)
- Competition problem identified during the market analysis (excessive pricing) could be solved by a less intrusive approach (LRIC+)
- There is not direct connection between wholesale and retail prices (therefore, no or at least reduced possibility to influence retail prices to the benefits of retail users)



### Legal actions against CTU's price decisions - defensive arguments of CTU

- Description of reasons why the pure LRIC is considered to be the best regulatory approach (see above)
- Pure LRIC allows for coverage of all costs directly associated with the considered wholesale termination service
- Commission Recommendation though nominally not binding, in reality (unjustified) breach of the Recommendation is interpreted as a breach of the Framework Directive and Access Directive
- Wholesale prices have so far formed important part of retail prices (causality), CTU has also observed long-term evolution of both wholesale and retail price levels (average prices) and have proved significant correlation
- CTU is still waiting for court's decisions

### Experience of other EU countries - „Naughty“ countries (who disobeys Recommendation) and EC reaction

- The final deadline for Recommendation implementation was 31 December 2012 (Article 11 of the Recommendation), exceptionally 1 July 2014 for those NRAs with limited resources (Article 12 of the Recommendation) - these, however, should demonstrate that a methodology other than a pure LRIC based on CCA results in outcomes consistent with the Recommendation and generates efficient outcomes consistent with those in a competitive market (i.e. TR based on a benchmark in those countries with already implemented pure LRIC)
- Benchmark TR are supposed to be used e.g. in Slovenia and Portugal
- The number of countries switching to pure LRIC methodology is gradually rising

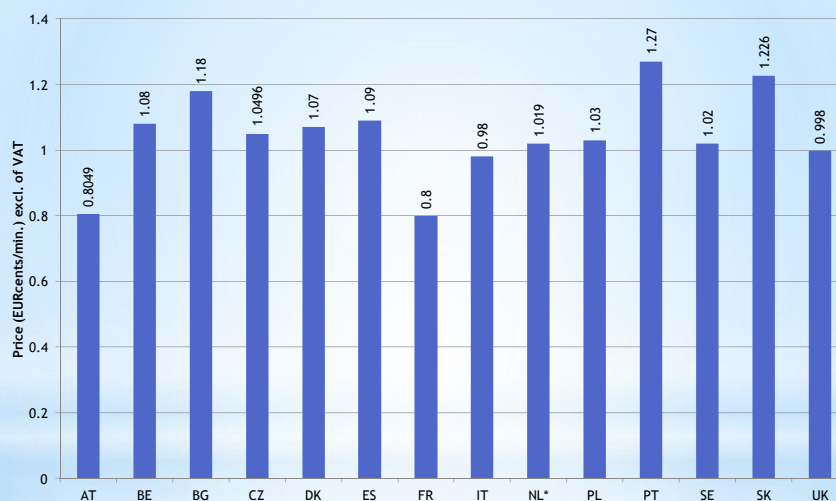


15

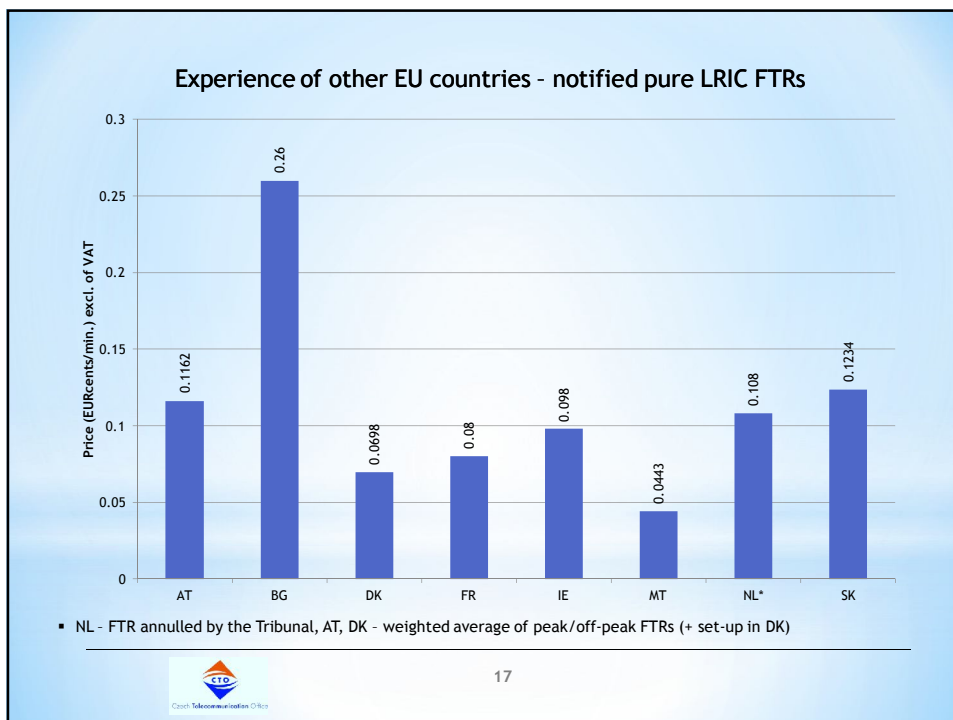


16

### Experience of other EU countries - notified pure LRIC MTRs




- NL - MTR annulled by the Tribunal




**Experience of other EU countries - „Naughty“ countries (who disobeys Recommendation) and EC reaction**

- So far only one NRA has actively refused to use pure LRIC methodology with regard to principal disagreement based on economic arguments (Bundesnetzagentur from Germany), one NRA was forced to refuse this methodology in 2012 (Onafhankelijke Post en Telecommunicatie Autoriteit - OPTA from the Netherlands, now ACM) with regard to court decisions - however, based on a new analysis of market 3 (FTR) and 7 (MTR) the ACM has recently (August 2013) once again opted for pure LRIC (as it once did in 2010), but...(see below)
- There are still 20 countries (71 %) for market 3 and 14 countries (50 %) for market 7 that have not implemented pure LRIC TR



18

 Czech Telecommunications Office

### Phase II investigation and what have we learnt (NED, CZ, GER)

- European Commission may open phase II investigation pursuant to Article 7a of the FD (2002/21/EC as amended by Directive 2009/140/EC) in case it considers the draft measure (remedy)
  - Would create a barrier to the single market
  - Is not compatible with Community law
- The Body of European Regulators for Electronic Communications (BEREC) should issue an opinion on European Commission's serious doubts (opening phase II investigation)
- The European Commission should take utmost account of the opinion of BEREC in its final recommendation (if there is any)
- Regarding TR, from January 2012 up today these phase II investigations have been held with 7 NRAs - we will take a closer look at OPTA, CTU and BNetzA (phase II investigation have experienced also i.e. ARCEP, CMT or Agcom)

### Phase II investigation and what have we learnt - the Netherlands



- OPTA (then Dutch regulator, now called ACM after merger with other regulatory bodies)
- OPTA was one of the first European regulator to use pure LRIC TR - in July 2010 notified both MTR and FTR
- A number of operators in the Netherlands appealed price control measures to the Dutch Trade and Industry Tribunal (the national court) which in August 2011 issued its judgment ruling that both MTR and FTR should be set by reference to the BU-LRIC+ methodology
- Reasons for Tribunal's ruling
  - OPTA should have investigated whether a less burdensome measure was also appropriate
  - OPTA should not have used a cost methodology which was more onerous for the regulated operators than an alternative cost methodology which determines cost-oriented rates
  - Although OPTA tried to remedy the inefficient retail pricing structure (financial transfer from fixed lines users to mobile users) this competition problem was neither recognized as a problem in the ERG Common Position on Appropriate Remedies nor happens on the relevant market (but on the competitive retail market)

### Phase II investigation and what have we learnt - the Netherlands

- Therefore, to tackle the competition problem identified (excessive pricing) it would have been sufficient to use BU-LRIC + methodology
- The obligation of NRA to take into utmost account the recommendations of the European Commission does not affect the obligation of OPTA to deviate from the non-binding Recommendation on the TR if the latter would lead them to act in violation of the national law
- The Tribunal directly set in its decision MTRs as these had already been calculated by OPTA
- The Tribunal instructed OPTA to take a new decision setting FTRs based on LRIC+
- In January 2012 OPTA notified to the European Commission draft measure setting (only) FTRs
- In February 2012 the European Commission opened with OPTA phase II investigation to FTR price control and (interestingly) also to MTR price control, which, according to OPTA, was not part of the draft measure being notified (MTR were merely marginally mentioned in the draft measure but had been already set by the Tribunal)

### Phase II investigation and what have we learnt - the Netherlands - BEREC Opinion (BoR (12) 23)

- BEREC issued its Opinion in March 2012 and generally, it considered European Commission's serious doubts to be justified
- OPTA did not provide an economic justification for draft measures (which would have been difficult for OPTA as it in fact supported pure LRIC and used this methodology already in 2010)
- According to OPTA there was no need for economic justification - Article 19 of the FD requires NRA to give the reasons for not following a recommendation and this reason is a binding decision of the national court
- BEREC argued why pure LRIC is better than LRIC+ (termination is a two-way access, common costs should be recovered mainly on the retail markets which are more competitive and where there is a price constraint, lower TR would lead to lower retail off-net calls prices and thus increased competition in call charges, reduction of competitive distortions between fixed and mobile operators)
- OPTA's approach would create barriers to the internal market as users from other Member States would have to pay in their retail prices also higher TR applied by Dutch operators (however, these TRs should have been equally applied to both Dutch operators/users and operators/users from other Member States)
- BEREC acknowledged that OPTA proposed draft measures in reaction to binding court's decision

### Phase II investigation and what have we learnt - the Netherlands - the end of the story (or not?)

- In June 2012 the European Commission issued its first Recommendation pursuant to Article 7a of the FD requiring OPTA to amend or withdraw its proposed draft measures
- As the European Commission has no right of veto (contrary to the notification of analysis) OPTA kept its measures and issued them shortly afterwards (in July 2012)
- On 31 July 2013 the European Commission notified (without any comments) new ACM's draft measures on FTR and MTR after a new analysis of both markets
- ACM again returned to the pure LRIC methodology
- New TR should have been applied from 1 September 2013 and were as follows:
  - FTR - 0,108 EURcents/min (compared to previous 0,37 EURcents/min)
  - MTR - 1,019 EURcents/min (compared to previous 2,4 EURcents/min)
- However, the Dutch Trade and Industry Tribunal does not give up - on 27 August, 2013 annulled the pure LRIC FTRs and MTRs adopted by ACM and replaced them with TR based on LRIC+
- The tribunal rejected ACM's argument pointing to possible distortion of the internal market where 7 % - 9 % of the termination traffic in the Netherlands is originated abroad
- According to the Tribunal this volume of traffic includes also calls originating from outside the EU and calls from EU Member States that have not yet implemented pure LRIC TR (mainly Germany), so no disadvantage would be caused by higher Dutch TR
- The decision was adopted in a fast track procedure and could be further challenged by ACM
- Is there going to be another phase II investigation? (the Tribunal has already set TR)



23

### Phase II investigation and what have we learnt - the Czech Republic



- In November 2012 CTU sent to notification draft measures for both MTR and FTR
- Both draft measures (price decisions) were based on the recommended pure LRIC methodology
- Proposed drop in MTR - from app. 2,2 EURcents/min to 1,08 EURcents/min (-51 %)
- Proposed drop in FTR:
  - from app. 1,36 EURcents/min to 0,32 EURcents (-76 %) in peak time at transit switch
  - from app. 0,68 EURcents/min to 0,16 EURcents (-76 %) in off-peak time at transit switch
- In December 2012 the European Commission launched a phase II investigation (C(2012) 9523) by sending its serious doubts letter to the draft measure on FTR being notified (draft measure on MTR was notified)



24

### Phase II investigation and what have we learnt - the Czech Republic - Serious doubts of the European Commission

- The primary reason triggering the phase II investigation was price comparison with other Member States with already notified FTRs
- At that time there were only 4 countries (!) with notified FTRs - Denmark, France, Ireland and Malta
- FTRs in those four countries were ranging from app 0,044 EURcents/min to 0,098 EURcents/min, so, indeed, these FTRs were lower than FTRs proposed by the CTU (0,16-0,32 EURcents/min)
- The European Commission asked CTU for explanation of differences between its FTRs and FTRs in other Member States (with pure LRIC)
- Minor concerns were raised also in connection with interconnection at the local and transit level which the European Commission found obsolete

### Phase II investigation and what have we learnt - the Czech Republic - CTU's way of defense

- The primary response of CTU to the serious doubts of the European Commission was assertion and conviction that higher FTRs cannot *per se* be considered as a proof demonstrating inconsistency with the Recommendation on TR
- The goal of the Recommendation is to harmonize the methodology rather than prices (contrary to the international roaming prices regulation) and unless the European Commission points to errors in CTU's methodology there is no legal basis to consider higher FTRs in violation with European legislation
- The number of benchmarking countries seemed to be quite limited (only 4 countries) - moreover, the Dutch NRA - OPTA - in 2010 successfully notified (pure LRIC) FTR of 0,36 EURcents/min which was higher than FTRs calculated by CTU (0,16-0,32 EURcents/min)
- CTU described to the BEREC expert working group (EWG) the cost model used for FTRs calculation which was fully NGN based

### Phase II investigation and what have we learnt - the Czech Republic - BEREC Opinion (BoR (13) 04)

- BEREC issued its Opinion in January 2013 and generally, it did not consider European Commission's serious doubts to be justified (the second time BEREC supported CTU - for the first time in July 2012 in case of product market definition and geographic segmentation of wholesale broadband market - BoR (12) 69)
- BEREC acknowledged that, as the Recommendation does not require the achievement of a certain level of TR but recommends a methodology, TR in other countries in itself cannot be used to motivate serious doubts by the European Commission
- NRAs should not have to provide a justification why its FTRs differ from FTRs in other Member States, but should provide the European Commission with sufficient transparency regarding measures notified
- BEREC found three possibly disputed parts of the cost model that allowed alternative solutions and recommended verification of these parts
  - Level of the wholesale billing costs (significantly affects FTR)
  - Calculation of the peak and off-peak tariffs (does not have major effect on FTR)
  - Exclusion of international incoming traffic (does not have major effect on FTR)

### Phase II investigation and what have we learnt - the Czech Republic - aftermath

- In order to examine in detail BEREC suggestions CTU withdrew its draft measure regarding FTR
- Subsequently, based on research between individual NRAs and based on data from OLO, CTU excluded major part of the billing system from the traffic sensitive costs and thus also from FTR
- There will be only one aggregate FTR regardless of (peak/off-peak) time and interconnection point (differences between local and transit level are negligible)
- New FTR will be applied to all SMP on the market and should be valid in the first half of 2014
- Preliminary new FTR seems to be of app. 0,12 EURcents/min (compared to previous 0,16-0,32 EURcents/min, i.e. minus another 60 %, compared to current FTR the drop amounts to 90 %)

### Phase II investigation and what have we learnt - Germany



- In the course of the first half of 2013 BNetzA sent to notification various draft measures regarding TR - in January 2013 measures regarding MTR, in March and May 2013 measures regarding FTR (at first for Deutsche Telekom, then for two other OLOs - FTRs set by national benchmark to FTRs of Deutsche Telekom)
- In all cases the proposed price control measures were based on BU-LRIC+ methodology (called CESP by BNetzA - Cost of Efficient Service Provision)
- MTR should be as follows:
  - From 1 December 2012 (retrospective application) to 30 November 2013 - 1,85 EURcents/min
  - From 1 December 2013 to 30 November 2014 - 1,79 EURcents/min
- FTR should be as follows:
  - From 1 December 2012 (retrospective application) to 31 December 2014 0,36 EURcents/min in peak time and 0,25 EURcents/min in off-peak time

### Phase II investigation and what have we learnt - Germany

- Not surprisingly, the European Commission was not satisfied with both the methodology employed by the German NRA and resulting TR
- According to the European Commission the BNetzA did not provide sufficient and compelling economic reasons to show that LRIC+ methodology would be better suited for German market
- The European Commission regards approach chosen by BNetzA to be in violation of European law, namely
  - Articles 8(4) and 13(2) of the AD which require NRAs (i) to impose remedies, which are based on the nature of the problem identified, proportionate and justified in the light of the objectives laid down in Article 8 of the FD and (ii) to ensure that the chosen cost recovery mechanism or pricing methodology serves to promote efficiency and sustainable competition and maximizes consumer benefits
  - Article 16(4) of the FD, which requires NRAs to impose on SMP undertakings appropriate regulatory obligations
- Again, approach taken by the BNetzA would create barriers to the internal market
- Subsequently, three phase II investigations were opened with BNetzA

### Phase II investigation and what have we learnt - Germany - BNetzA arguments for LRIC+ methodology

- BNetzA includes in TR both non-traffic-related common costs and traffic-related costs, which could be attributable to services other than wholesale voice termination
- BNetzA believes that the non-recognition of common costs falls within its wider discretion to choose the most appropriate regulatory model and states that a pure LRIC methodology would not be better suited to meet the policy objectives of promoting competition and interest of citizens and consumers
- Under the pure LRIC concept interpreted in light of the Recommendation the wholesale termination service is the last incremental service (incremental costs of termination = total long-run costs of an operator providing its **full range of services** - total long-run services of that operator **not providing a wholesale call termination service to third parties**) - however, this needs to suppose that the primary reason of building a network are services provided between final users of one operator (internally), to whose all common costs should be attributed (cost-causality), but...
- ...BNetzA believes there is no cause to consider services used purely internally to the network as main services and services sold externally to the network as additional services with the result that common costs would be borne only by the main services
- BNetzA 's goal is to simulate a competitive outcome („as-if competition price“)
- It cannot be proven that a competitive price for termination would oscillate to LRIC levels rather than to LRIC+ levels

### Phase II investigation and what have we learnt - Germany - BNetzA arguments for LRIC+ methodology

- Theoretically, common costs could be distributed according to the price elasticities of individual involved parties (higher proportion of common costs to goods/consumers with lower price elasticity - known as Ramsey pricing), however, in the present case, it was not possible for BNetzA to determine existing price elasticities of the wholesale buyers, calling end users and called end users, in the case of competition

### Phase II investigation and what have we learnt - Germany - BEREC Opinions (BoR (13) 47, BoR (13) 55, BoR (13) 94)

- BEREC issued its first Opinion on German disputed measures in April 2013, then in May 2013 and finally in August 2013 - not surprisingly, all opinions have similar line of argumentation and the same result - the serious doubts of the European Commission are justified
- The main argument of BEREC is that the legal starting point for BNetzA analysis has to be the pure LRIC approach as laid down in the Recommendation on TR and not the LRIC+
- In other words, BNetzA should not have asked whether the pure LRIC was better than LRIC+ but the other way around - whether the LRIC+ was better than pure LRIC (default setting)
- This comes from Article 19 of the FD (*...where a NRA chooses not to follow a recommendation, it shall inform the Commission, giving the reasons for its position* - i.e. to give reasons why any alternative approach - e.g. LRIC+ - is better than pure LRIC)
- To the emulation of competitive price (TR) carried out by BNetzA, BEREC states that it is not necessarily the case that even in highly competitive markets a multiproduct firm will allocate joint and common costs an (equal proportionate or volume proportionate) mark-up - in many cases prices only cover incremental/marginal costs
- BNetzA's approach (allocating joint and common costs) does not lead to efficient allocation (causes welfare losses) as it does not take into consideration call externality occurring under a CPP regime (the called party has a call benefit it does not pay for)
- Pure LRIC takes this externality partly into account (not wholly as it would be difficult anyway to estimate call utility for called party) by excluding joint and common costs from TR

### Phase II investigation and what have we learnt - Conclusions to German phase II investigations - possible next steps of the European Commission

- Following BEREC's opinions on the German draft price measures, the European Commission has issued its recommendations pursuant to Article 7a of the FD requiring BNetzA to amend or withdraw its proposed draft measures
- In relation to countries that do not intend to implement Recommendation the European Commission may possibly do one of these things:
  - Take into account that, as recommendations are not binding, not all countries will comply with that (if the intention was to make it uniformly applied throughout the EU, then some „hard“ piece of law should have been applied)
  - Use Article 19 of the FD allowing it to issue decision on the harmonized application of the provisions in FD
  - Possible action at the Court of Justice of the EU for violation of the FD and AD?

### Experience of other EU countries - Italy, Ireland



- There have been several other phase II investigations launched by the European Commission - however, some of them were finished by withdrawing draft measures by NRA (Latvia with FTR, Spain with MTR)
- Italian NRA Agcom initially (in the first half of 2013) proposed glide path towards pure LRIC FTR which should have been reached on 1 January, 2015. The European Commission disagreed with such a delay in application of pure LRIC FTRs and subsequently, BEREC backed serious doubts of the European Commission - Agcom withdrew its draft decision
- Recently (August 2013) interesting ruling came from the Irish High Court that ruled that ComReg (Irish NRA) was not legally allowed to use benchmarking approach as a regulatory price control
- At the end of 2012 ComReg adopted decision setting MTR of 1,04 €cents/minute for six mobile operators (MNO, MVNO) from 1 July, 2013 - MTR was based on international benchmark of seven EU countries with already adopted pure LRIC MTR (ComReg is still working on its cost model)
- The Irish High Court has ruled that price control must be based on an actual cost analysis relating to the individual operator upon which the price control is imposed



35

### Experience of other EU countries - Ireland

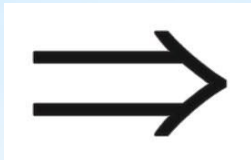


- In Court's view it is highly questionable whether the use of an „arithmetical short cut“ of adopting the average of the rates that happen to be available from other NRAs can be considered as a methodology
- Neither EU Directives nor Irish legislation allow cost accounting method that is based on costs other than those of the operator in question
- Ruling is based (also) on Article 13(1) of the AD - *...to encourage investments by the operator, including in NGN, NRA shall take into account the investment made by the operator, and allow him a reasonable rate of return on adequate capital employed, taking into account any risks specific to a particular new investment network project*
- Although the Recommendation on TR mentions (recital 22) benchmarking as an example of a methodology that could be used in the transition to the recommended cost model (until 1 July, 2014), this has no material legal impact
- Final order from the court was expected in October 2013, so current MTR is still valid (however, there could be retrospective MTR adjustments if the court finally rules in line with its judgment)



36

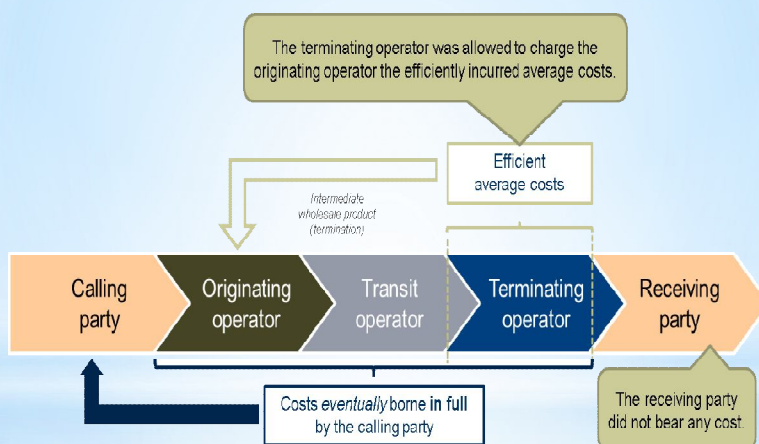
### Regulatory consequences stemming from pure LRIC TR



- How does the Recommendation on TR influence regulatory decisions on other relevant markets?
- Is needed revision of regulation on relevant market 1 and 2?
- Under what conditions?
- How the adjustments should be done?

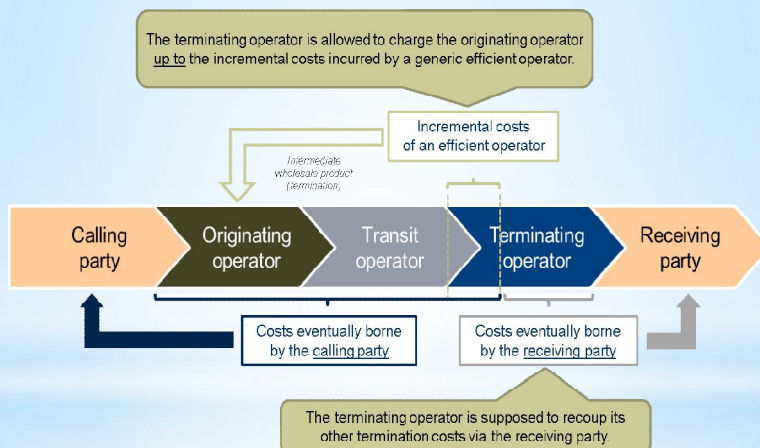
### Regulatory consequences stemming from pure LRIC TR - cost recoupment

- Termination cost recoupment before the Recommendation on TR (based on research made by BEREC)



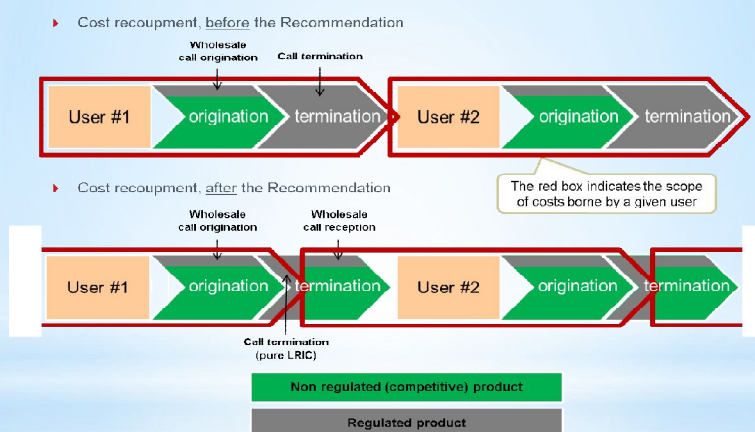
### Regulatory consequences stemming from pure LRIC TR - cost recoupment

- Termination cost recoupment after the Recommendation on TR



### Regulatory consequences stemming from pure LRIC TR - cost recoupment

- The costs stack has remained unchanged, however, shift has occurred in the cost recoupment - the share of costs recouped via competitive (non-regulated) products may increase



### Regulatory consequences stemming from pure LRIC TR - when there is no need for any regulatory adjustments?

- Generally, there are two situations not requiring any regulatory intervention/adjustments
  - When the traffic between operators is balanced (not very likely situation) - costs excluded from TR under the pure LRIC concept (joint and common costs) may be fully recouped by operator's savings resulting from lower outgoing termination charges (retail revenues previously used for payment for termination)
  - There is no regulated service (in association with termination) - namely services from relevant market 1 (access to the public telephone network at a fixed location) and relevant market 2 (call origination on the public telephone network provided at a fixed location - CS/CPS or WLR) - operator may freely recoup costs by an adjustment of its retail tariffs (direct recoupment from retail users) or by an adjustment of its wholesale (unregulated) tariffs (indirect recoupment)

### Regulatory consequences stemming from pure LRIC TR - when there is need for regulatory adjustments?

- Generally, when the above mentioned conditions are jointly fulfilled, i.e.
  - The traffic between operators is not balanced
  - Operator is not free to set and adjust prices of its services
- If an operator provides also regulated wholesale services (CS/CPS, WLR) it would be discriminatory to demand all joint and common costs be recouped only from the retail users of that operator
- Examples:
  - Network operator would in reaction to pure LRIC TR raise its retail tariffs (prices/minute) while CS/CPS operator (bearing no investment risks) would only profit from lower TR for outgoing traffic without need to pay higher origination rate for CS/CPS - therefore, would, contrary to the network operator, lower its retail prices (prices/minute) - leads to competitive distortion
  - Network operator would in reaction to pure LRIC TR raise its retail access charge while WLR operator (bearing no investment risks) would again only profit from lower TR for outgoing traffic without need to pay higher WLR - therefore, would offer lower retail access charges (line rental) than network operator - leads to competitive distortion
- Conclusion - joint and common costs excluded from TR should be non-discriminatory attributed to both retail services of an operator and to its regulated (mostly wholesale) services

THANK YOU FOR YOUR ATTENTION!

Any questions, any time at:  
Subrtp@ctu.cz





## Agenda

### ■ Topics

- International roaming
- Operator's perspective on 4G mobile broadband, including future tariff design
- Competition on Czech telecom market
- IPTV service development

### ■ Specific questions

- |  |  |  |
|--|--|--|
| 1. What are the key success factors of 4G? e.g. evolution strategy from 3G to 4G? new applications? tariffs? | 4. What are the challenges in offering mobile services in Czech? What are the bottlenecks?   | 7. It would be beneficial to consumers of both Czech and Taiwan if the international roaming charges could be reduced. How can NCC and Telefonica collaborate to make that happen? |
| 2. Do you have flat rate tariff or do you charge differently based on transmission volume?                   | 5. Do you find it difficult in finding sites for base station? Are building owners willing to lease their rooftop for operators to erect base station antenna? | 8. How well are O2's following tariffs received by consumers in the Czech mobile market?   |
| 3. What may be the reasons that the 4G take up rate is much lower in Europe than in the United States?       | 6. What regulatory measures do you wish CTO to do or not to do?  |  |

### ■ The meeting

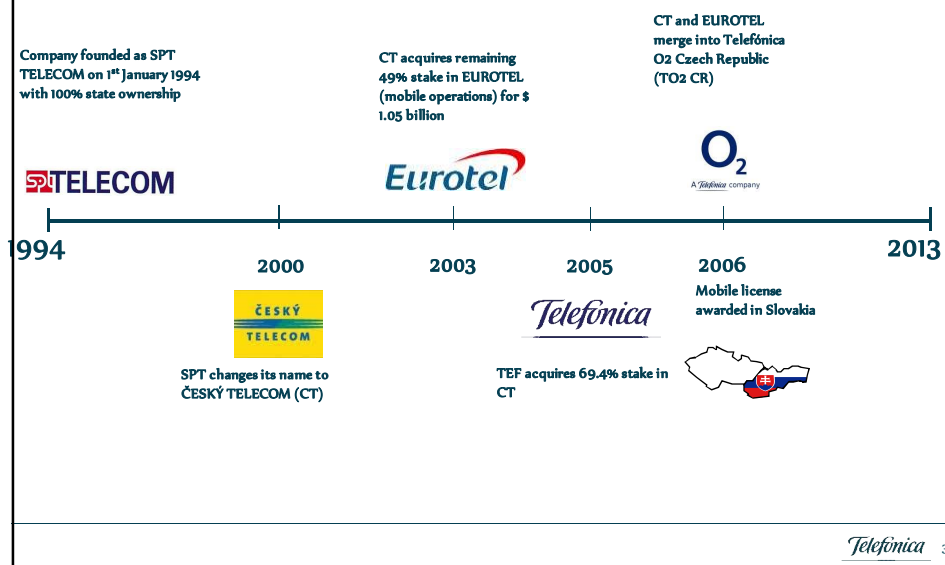
- Introductory presentations – 45-50 mins
- Q&As session

# 01

## Introduction

*Telefónica*

### Telefónica – evolution







*Telefónica* 3

## Key figures



*Telefónica*

Population	10.6m		Mobile Customers	5m
Households	~4m		Fixed lines	1.4m
GDP	\$196b		Fixed broadband	0.9m
GDP per capita	\$18.6k		IPTV	0.15m

*Telefónica* 4

## We recognise the value of the broader community through a number of successful initiatives

**think  
big**  
with O<sub>2</sub>

- European program for young people (13 – 26 years), who want to change something in their community
- We are giving them financial support (CZK 10 to 70 thousand), training, mentoring from TEF employees and package of O2 services
- Since 2011, we have supported 550 projects by more than 29 million CZK

**wayra.**

- Start-up incubator
- Prague academy launched in 2013
- World class coaching and mentoring
- Up to €50,000
- Minimum 6 months working space
- Access to c. 300million Telefónica customers and further investment through a wide local & global network

*Telefónica* 5

# 02

## Market context

*Telefonica*

### Czech macro economy – crisis impact visible, outlook for 2013 remains challenging

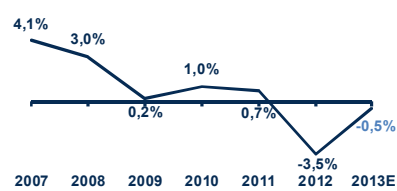
#### Real GDP growth

(year-on-year)



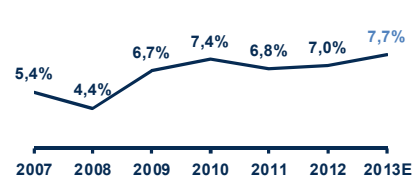
#### Private Consumption

(year-on-year)



#### Unemployment rate

(average)



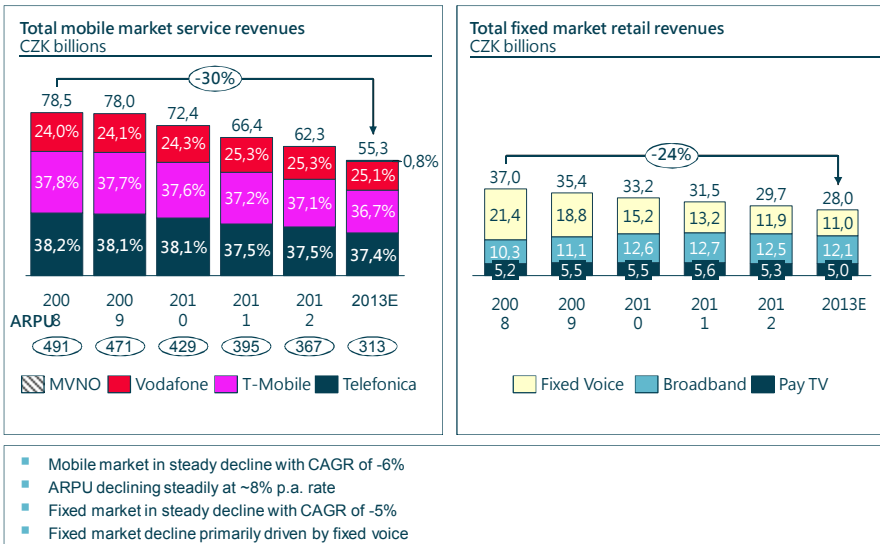
#### Inflation

(year-on-year)



*Telefonica* 7

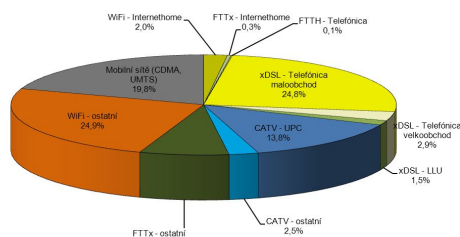
## On a micro level we are experiencing the effects of a maturing market



Telefónica

## Retail Broadband market

- Total broadband market counts for 3 mil customers that is more than 2/3 of czech households
- Unique market structure – WiFi providers
- Customers enjoy decreasing prices and they drive broadband demand

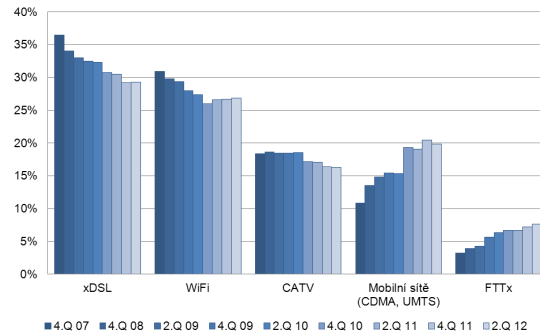


Source: CTO M5 draft analysis, 2013

Telefónica

## Broadband market share

- Infrastructure competition proved to drive market growth
- Significant importance of mobile broadband – almost 20% share despite complementary usage to fixed broadband

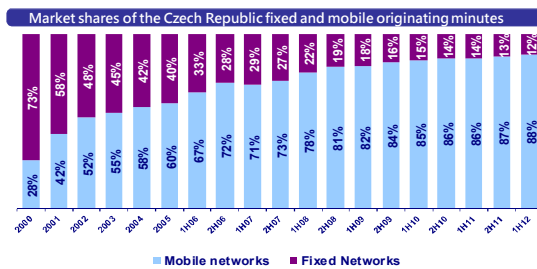


Source: CTO M5 draft analysis, 2013

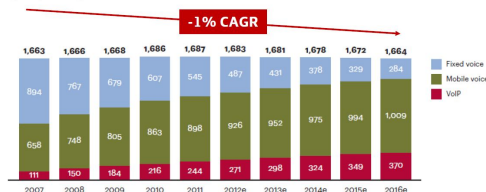
Telefónica 10

## Fixed voice

- Strong fix mobile substitution
- Fix penetration peak in 2001 (~3.8m lines), steady decrease since
- O2 Home concept since 2008. Traditional fixed voice add-on to fixed broadband



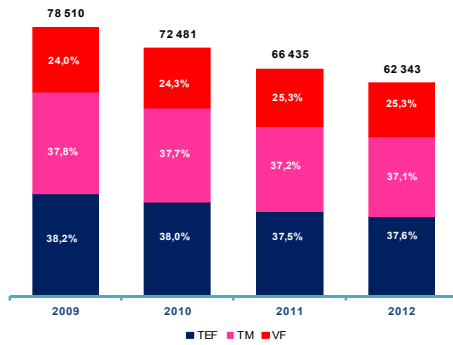
Billion minutes  
(2007–2016)



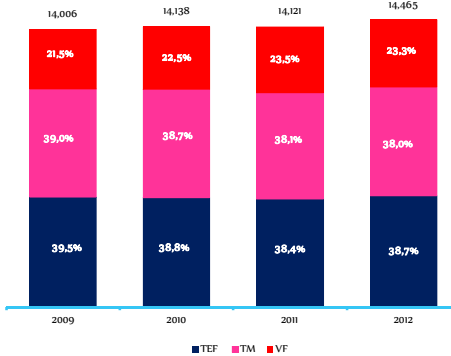
Telefónica

## Mobile market shares

CZ mobile service revenues [CZK mil.]



CZ mobile subscribers ['000 registered]

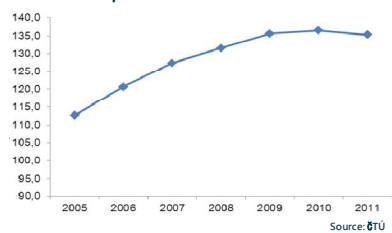


- Total CZ mobile market size declined by 26% in last 5 years, largely due to MTR cuts and competition

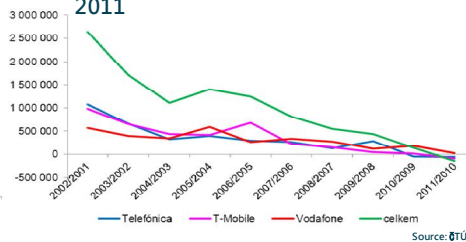
Telefónica 12

## High mobile penetration & market expansion slow-down

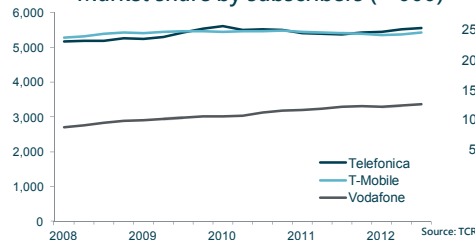
- SIMs penetration at 135%



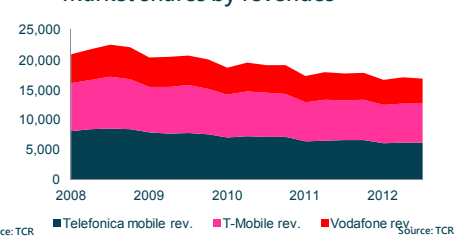
- New subscriber adds in the negative in 2011



- Market share by subscribers ( '000)



- Market shares by revenues

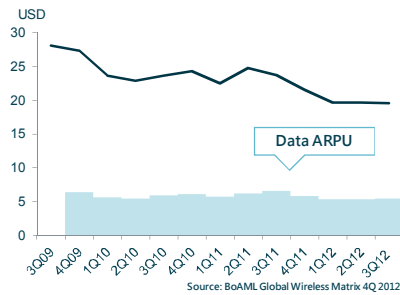


Telefónica

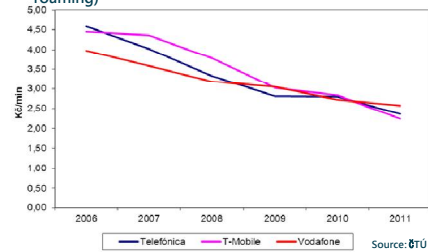
## Mobile voice – retail prices and ARPU

- 2006 to 2011: c.45% reduction in retail prices

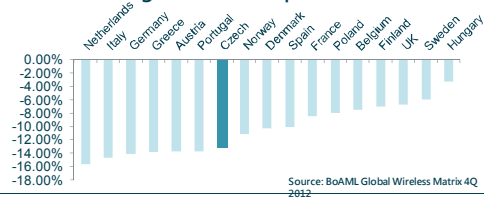
- ARPU Czech Republic 2009-2012 dropped, then stagnation
- A slowly growing share of data on revenue from 23% in 2009 to 28% in 2012



- Continuous reduction of average price per real minute (excl. intl. calls and outbound roaming)

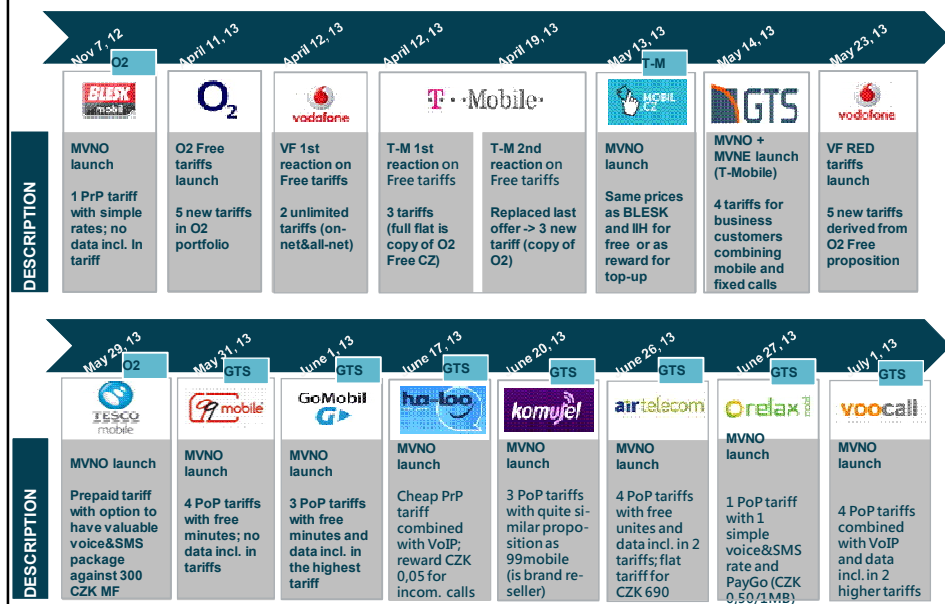


- Change in revenue per minute in 2011



Telefónica

## Timeline: 36\* MVNOs on CZ market since November 2012 – part 1



\* Incl. 3 MVNE (GTS – T-Mobile, Quadruple – Vodafone, DH Telecom – Vodafone)

Telefónica

15

## Timeline: 36\* MVNOs on CZ market since November 2012 – part 2

DATE	OPERATOR	DESCRIPTION
July 1, 13	GTS	MVNO launch 4 PoP tariffs with data incl. in 2 higher tariffs and flat tariff for CZK 799
July 1, 13	GTS	MVNO launch 1 PoP tariff with simple rates; no data incl. in tariff
July 8, 13	GTS	MVNO launch 3 PoP tariffs with free minutes; no data incl. in tariff
July 16, 13	GTS	MVNO launch 1 PrP tariff combined with VoIP, no data incl. in tariff
July 17, 13	GTS	MVNO launch 2 PoP tariffs with free mins; no data incl. in tariffs (aggregator of small VoIP providers)
July 24, 13	GTS	Proposition redesign 6 PoP tariffs including youth and full flat. Other tariffs with free minutes&data
August 1, 13	Quadruple	MVNE launch (Vodafone) 2nd MVNE on the CZ market; no own offer for customers
August 5, 13	Quadruple	Proposition redesign +2 new PoP aggressive tariffs; still no data incl. in tariff
August 10, 13	GTS	MVNO launch 3 PoP tariffs combined with VoIP; no data incl. in tariffs
August 12, 13	Quadruple	MVNO launch 3 PoP tariffs combined with VoIP; no data incl. in tariffs
August 13, 13	Quadruple	MVNO launch 6 PoP tariffs (individual and shared tariffs) with data incl. in 2 tariffs. Cheap data pack.
August 13, 13	GTS	MVNO launch 6 PrP tariffs with various types of free units; no data incl. in tariffs
August 15, 13	DH Telecom	MVNE launch (Vodafone) 3rd MVNE on the CZ market; offer through OpenCall
August 15, 13	Quadruple	MVNO launch 2 PrP simple tariffs with cheaper prices to International
August 19, 13	Grey VF	MVNO launch 2 PoP tariffs only for subscribers of Regional Denik
August 27, 13	GTS	MVNO launch 2 PoP tariffs with data incl.; No data packages, only PayGo

\* Incl. 3 MVNE (GTS – T-Mobile, Quadruple – Vodafone, DH Telecom – Vodafone)

Telefónica

16

## Timeline: 36\* MVNOs on CZ market since November 2012 – part 3

DATE	OPERATOR	DESCRIPTION
Sept 9, 13	VF	MVNO launch 1 PrP tariff with no data incl.; free 300 MB if top-up > 200 CZK
Sept 9, 13	VF	MVNO launch 5 PoP tariffs + 2 data tariffs w or w/o comm.; Data packages
Sept 9, 13	GTS	MVNO launch 3 PoP tariffs w/o data incl.; Data packages; Affiliate program (MF discounts)
Sept 9, 13	GTS	MVNO launch 3 tariffs (both PrP or PoP) with very cheap data packages.
Sept 11, 13	GTS	MVNO launch 4 PoP tariffs; Best prices per data packages but available only for flat tariff. (+MBB)
Oct 1, 13	GTS	Kaktus: T-M 2nd brand PrP card with 9 packs of free mins, SMS and Data. On the level of MVNOs
Oct 8, 13	GTS	MVNO launch 3 PoP tariffs for seniors from 55 years; 99mobile is brand reseller
Oct 14, 13	GTS	MVNO launch Only for current customers; Free mins as reward according to mthly spend
Oct 15, 13	02	MVNO launch PrP tariff with voice and data packages (no comm.)
Oct 15, 13	GTS	MVNO launch 3 PoP tariffs (RES) and 1 PoP tariff (BS). On-net/all-net flat. (w or w/o comm)
Oct 22, 13	Quadruple	MVNO launch 1st PrP MVNO with depressive price model. Data and on-net min/SMS packages.
Oct 22, 13	DH Telecom	MVNO launch ?? 5 PrP tariffs w or w/o comm, GSM+VoIP. Cheap data packages

And new are coming every day...

- 29.10. - +4U
- 1.11. - COOP mobil
- 3.11. - Metronet
- 4.11. - WIA mobil

\* Incl. 3 MVNE (GTS – T-Mobile, Quadruple – Vodafone, DH Telecom – Vodafone)

Telefónica

17

In April, we launched new FREE Tariffs, responding to market situation and customer needs...

WE ARE SIMPLIFYING our portfolio:

- \* THREE TARIFFS FOR ALL residential customers
- \* Unlimited calls and texts in each plan
- \* New FREE tariffs are both for new and current customers
- \* Available for everyone, including customers with a contract
- \* Handset purchase not tied to monthly fee. We bring you FREEDOM

Unlimited tariffs for a revolutionary price

O<sub>2</sub>

## A SIMPLE OFFER

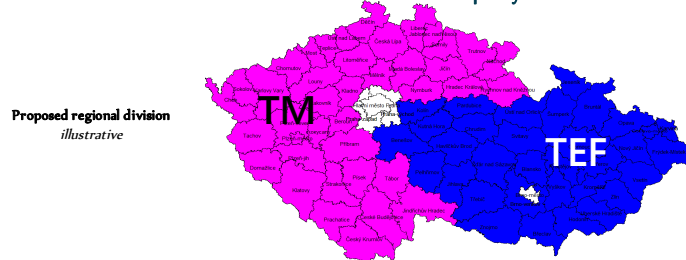
Name	Unlimited on-net calls	Unlimited on-net SMS	Internet in mobile	Unlimited off-net calls	Unlimited off-net SMS
FREE O2	✓	✓			
FREE O2 Plus	✓	✓	✓		
FREE CZ	✓	✓	✓	✓	✓

Before FREE launch, our customers used more than 200 tariff plans!

O<sub>2</sub>

## Network sharing with T-Mobile will bring significant value, leveraging the experience with MORAN <sup>1)</sup>

- The country will be broadly **divided into two areas**, based on the existing MORAN 3G division
- The innovative **MORAN scheme is in operation for 3 years at 1'000 sites**, being the first active 3G sharing initiative in Europe
- 2G and 3G networks of both partners will be consolidated into a **common grid**
- Both partners will share **active as well as passive infrastructure**
- The result will be a **more efficient network** with relevant savings
- Telefónica will continue to **benefit from its robust fixed capacity network**



<sup>1)</sup> Multi-Operator Radio Access Network – a current agreement with T-Mobile, sharing selected parts of 3G network in selected locations, to increase population coverage

*Telefónica* 20

# 03

## Regulatory Environment

*Telefónica*

## Regulatory Framework

- Czech Republic fully implemented the European Regulatory Framework
- Key responsibilities of the Regulator:
  - *Ex-ante* market regulation
    - SMP (Significant Market Power) player designation
    - Imposing regulatory remedies (e.g. access, non-discrimination)
    - Price Regulation
  - Spectrum Management
  - Customer Protection

*Telefónica*

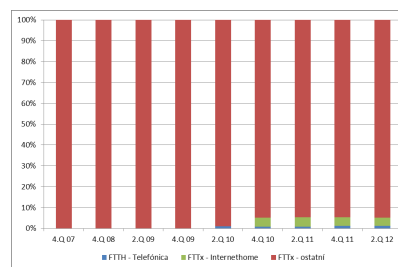
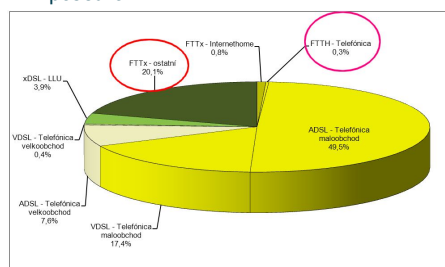
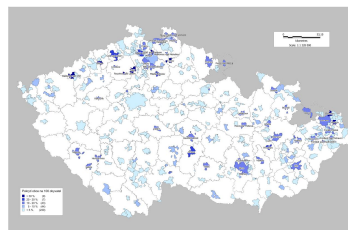
## Key Challenges

- Formalistic approach to market review process not allowing to fully reflect market realities
  - Relevant market definition – technological neutrality
  - Geographical segmentation – reflecting regional differences
- Pressure on termination fees
- “Recent” focus on mobile market
- Non-existence of efficient appeal mechanism against NRA's decisions

*Telefónica*

## Fixed market – regulated infrastructures

- Regulator refused to include CATV and wireless in the unbundling and wholesale broadband markets
- Fiber considered only after consensus on fiber regulation was reached
- NGA (fiber) networks enjoy 8% market share on Broadband market.
- Fiber deployment driven so far by new entrants i.e. in unregulated environment
- Yet fiber bitstream and fiber unbundling will be imposed on TEF



Source: CTO analyses

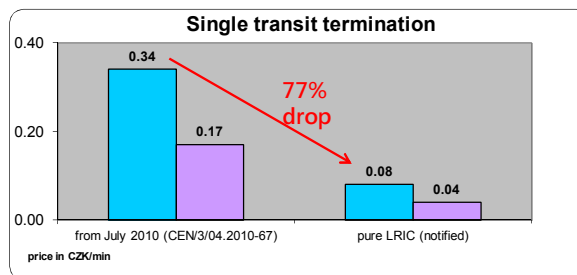
Telefonica

## Geographical segmentation

- In 2012 Geographic segmentation/partial deregulation was proposed by CTO:
  - Segment A – areas where TEF CR market share is below 40% and xDSL+WiFi+CATV/FTTX technologies are available (2/3 of Czech population)
  - Segment B – all other areas
- Proposal vetoed by the Commission despite supportive opinion of BEREC
- CTO withdrew the draft analysis and currently applies nation wide market definition

## Fixed Termination Rates – pure LRIC

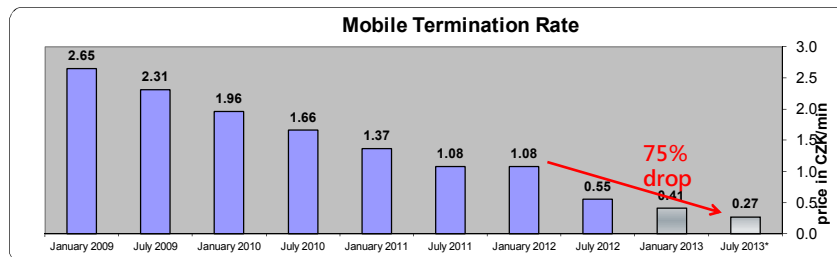
- Recommendation on termination rates applies also on fixed termination.
- CTO developed Bottom Up pure LRIC model and notified new costs to the Commission. Current rates for fixed termination were proposed to decrease 75%
- The Commission has started investigation, Article 7a
- Massive opposition from incumbent and alternative operators who expressed doubts about sustainable fixed voice market
- Following Commission's comments even further drop expected (CZK 0,03)



Telefónica

## Mobile Termination Rates

- 75% drop in 12 months leads to massive revenue loss which cannot be covered by other services.
- Further degradation of the financial possibilities to invest in new network technologies and further extension of broadband networks
- Winner of a regulation based “pure LRIC” are those providers which do not operate an own mobile access network
- Mobile operators filed legal action against adopted „pure LRIC“ price decision, breach of national law



Telefónica

## Mobile origination market review

- Mobile origination market found competitive in 2006
- Considered competitive EU wide – removed from list
- Spring 2012 – market re-introduced in CR, analysis launched with the goal to impose mandatory wholesale obligations on MNOS
- Public consultation finished in FEB 2013, analysis put on ice
- CTO tried to prove collective dominance, but analysis is superficial
  - Majority of EU markets would be collusive
  - CTO refused to reflect market development in 2012/2013
- CTO still maintains its “market failure” position
- **Airtours criteria**

Common strategy	CTO failed to define (not to mention prove) any concrete common strategy
Coordination stability	CTO ignores “instability” on the market <ul style="list-style-type: none"><li>• Spectrum auction – will double mobile spectrum available</li><li>• MVNOs entry</li></ul>
Retaliatory mechanisms	Bold “cross-border price war” theory

*Telefónica*

## 2013 Spectrum Auction

- **2<sup>nd</sup> Attempt after the 1<sup>st</sup> Auction failure (spring 2013)**
- **Controversial rules**
  - **Set-aside spectrum for new entrants**
    - No analysis neither justification provided
    - Illegal state aid – breach of EU Treaty
    - Discriminatory & disproportionate
  - **National Roaming and MVNO obligations**
    - Illegal intervention to existing rights (allotments) in case of 2G/3G
    - Circumventing the due process (market review -> SMP designation -> access obligations)
- **The Czech Court dismissed TEF’s action**
  - Dismissed on procedural grounds
  - Judicial review of the Auction rules possible only after Auction ends

*Telefónica*

*Telefonica*

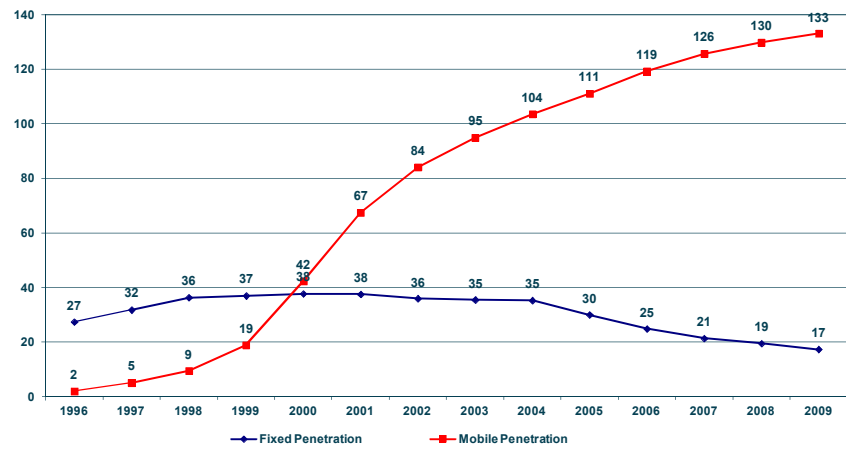
*Telefonica* 30

BACKUP

*Telefonica*

## Fix-Mobile substitution: Mobile overtook fix in 2000

Czech Republic – fixed and mobile penetration

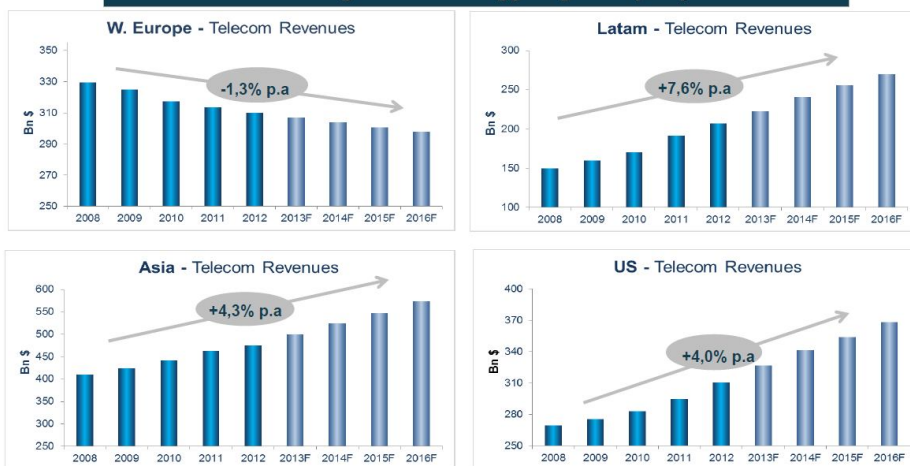


Telefónica 32

## Worldwide mobile outlook

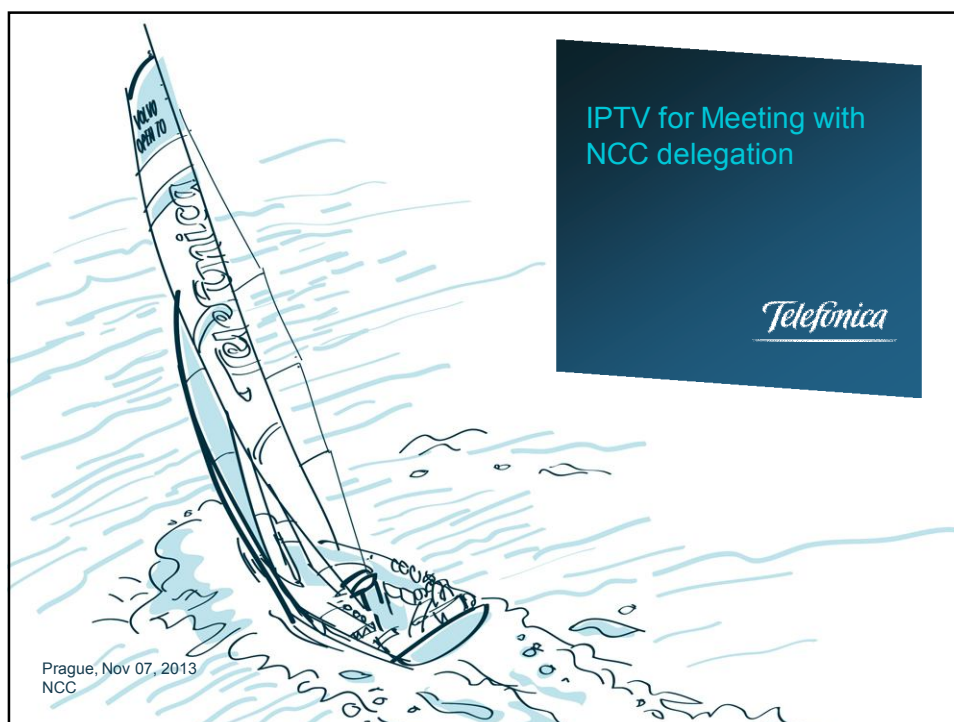
Europe is the only region in the world with no growth perspectives

Latam is the region with the biggest growth perspectives



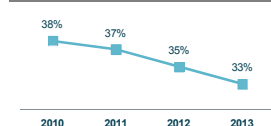
Source: IDC Worldwide Blackbook 2013

Telefónica 33



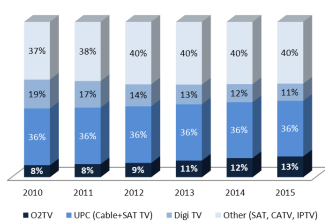
## TEF CZ is gaining market share on stagnating Czech PayTV market

### Paid TV HH Penetration



Data source: QFC2/2012 + LTP 2012

### Share of market (customers)



### Market trends and key challenges

- Pay TV market is slightly decreasing since 4Q2010
- Main driver was fast DTT rollout (availability of 21 free TV channels on 93% of population) and free DTH offer (2 mio active cards)

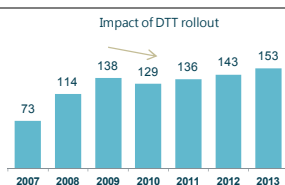
### Key opportunities

- Increasing demand for interactive TV
- OnDemand content consumption
- FBB base penetration
- Despite market trend IPTV as the only TV technology is growing

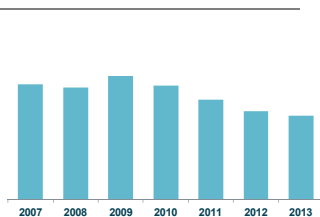
Telefonica

## Performance of O2TV was impacted by fast DTT rollout and xDSL bundle strategy

EOP O2TV (ths)



ARPU O2TV (czk)



- Bundle strategy as a main driver of the continuous growths since 2011
- Positive impact of VDSL (49% of xDSL base)

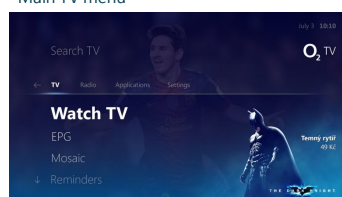
- ARPU under pressure due to aggressive competitors offers
- Positioning of IPTV as a value added on top of xDSL
- Win internet market share is our priority

Telefónica

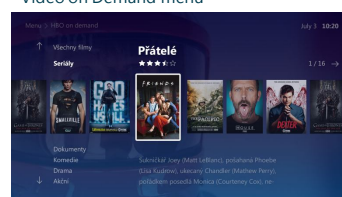
## New platform will enable us to bring unique features

### User Interface

Main TV menu



Video on Demand menu



### Multiscreen



TV



PC



Tablet



Smart phone

### Advanced features



Pause

Enables users to pause the live TV stream and resume later.



StartOver

Enables users to watch the current TV show from the beginning.



Timeshift

Users can watch a TV show that has already played in the past.



Record

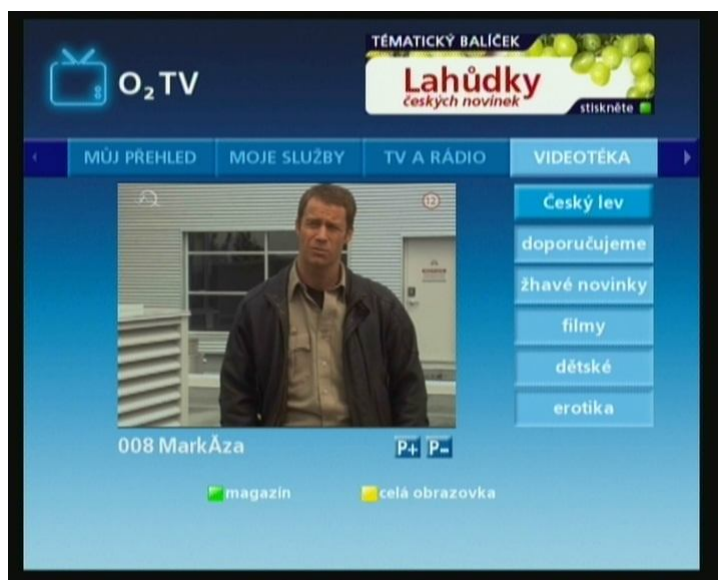
Network Personal Video Recorder allows parallel recording.



TV archive

Enables user to watch TV shows 7 days back.

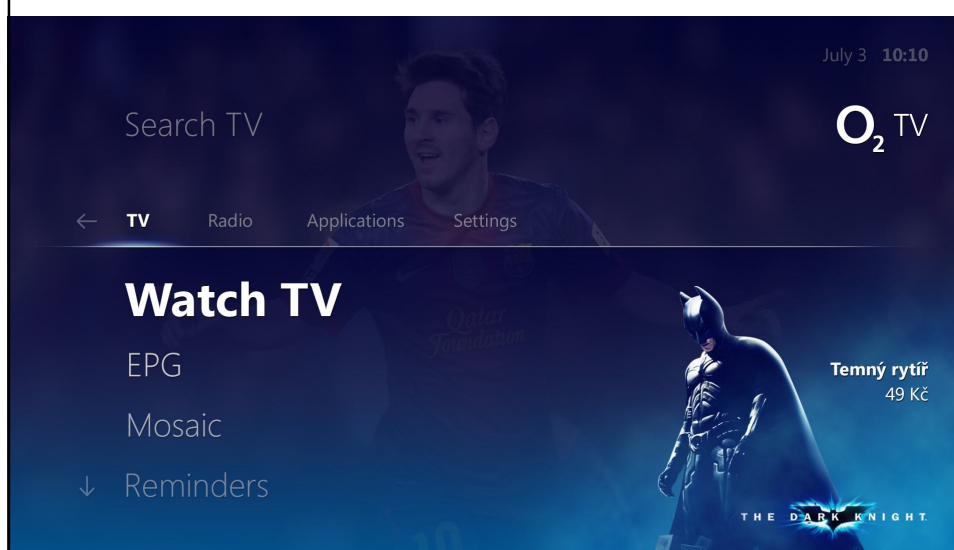
From an outdated Standard definition IPTV home screen...



5

Telefónica

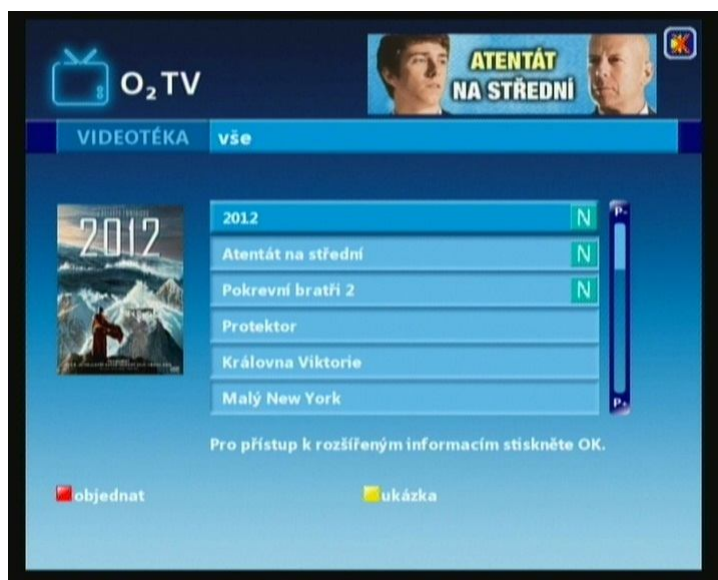
...to fresh and up-to-date High definition screen



6

Telefónica

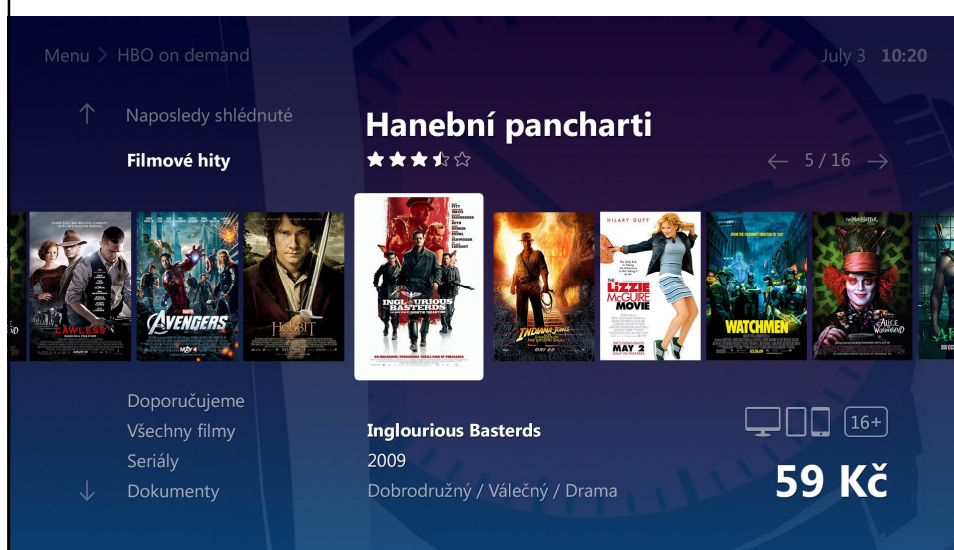
From a current On demand section screen...



7

Telefónica

.....to modern, appealing, call to action screen



8

Telefónica

## Service and content portfolio of O2 TV

### Linear TV channels (107)

20 Free to Air channels  
75 Thematic channels  
8 Premium Channels  
1 Barker channel

### HD TV channels - Trial

12 channels available in HD

### Audio channels

20 radio channels available in digital quality

### Value-added services

Advanced EPG (3 screens)  
TV Menu ordering  
Parental control  
Multi room  
interactive Magazine



product web site at: [www.o2tv.cz](http://www.o2tv.cz)

### On Demand services

#### Transactional VoD

1.000+ titles from  
Sony, Warner, Disney,  
Universal and local

#### Subscription VoD

150 titles, weekly refresh  
free for HBO subscribers

#### Catch Up TV

7-days back TV for selected  
programs of 7 Must Carry  
channels

#### Network User PVR

Recordings of 10 hour with 7  
days expiration, available to  
all customers for free

#### Timeshift

30 hours back for all  
channels but Adult available  
to all new platform customers  
for free

Telefónica

Programming strategy is bringing various channels in base to attract wide range of customers

### 26 ZÁKLADNÍCH PROGRAMŮ



### + 5 NEW CHANNELS



### NEW MODIFIED PACK (8 channels)



50+ channels

### 1 OPTIONAL PACK

Children (10)  
Series (6)  
Documents (10)  
Sport (11)  
Films (6)  
Music (9)

Proposed prices based on actual situation on the market, maintaining the current price for the bundle and positive P&L for top-up O2TV service

### Customers w/o xDSL

O2TV + xDSL (20 Mb/s) = 650 CZK (25 EUR)  
O2TV + xDSL (40 Mb/s) = 750 CZK (29 EUR)

*" High speed internet with many TV entertainment (attractive TV channels, VoD, Recording & TV archive) "*

- Price is valid forever
- Set-top- box rent for 1,656 CZK one off or **69 CZK within 24instalments**
- New xDSL modem for 999 CZK
- 12 M commitment
- Revolving mode

### Customers with xDSL

O2TV Flexi for 150 CZK (5,8 EUR)  
(within bundle)

*" Thanks to your high speed internet you can now enjoy TV entertainment for attractive price "*

- Price is valid forever
- Set-top- box rent for 1,656 CZK one off or **69 CZK within 24instalments**
- No new xDSL modem necessary
- 12 M commitment
- Revolving mode (xDSL for 500 CZK)

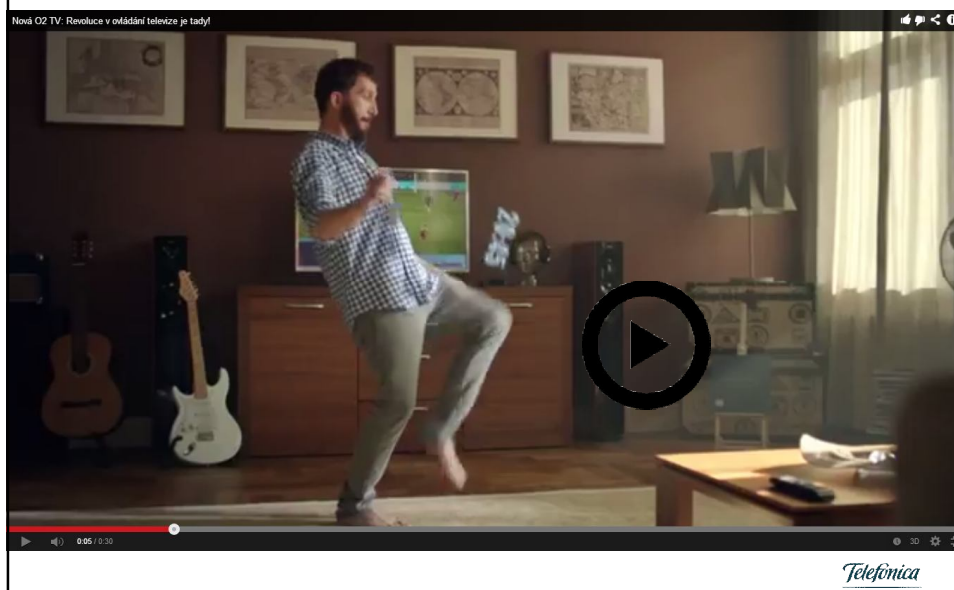
*Telefonica*

## Back Up

13

Telefónica

## Watch TV commercial of new O2TV



## Watch features of new OTV



## Several factors have created a unique situation in the US

