



**WORLD BANK GROUP**

# **Climate Change Overview**

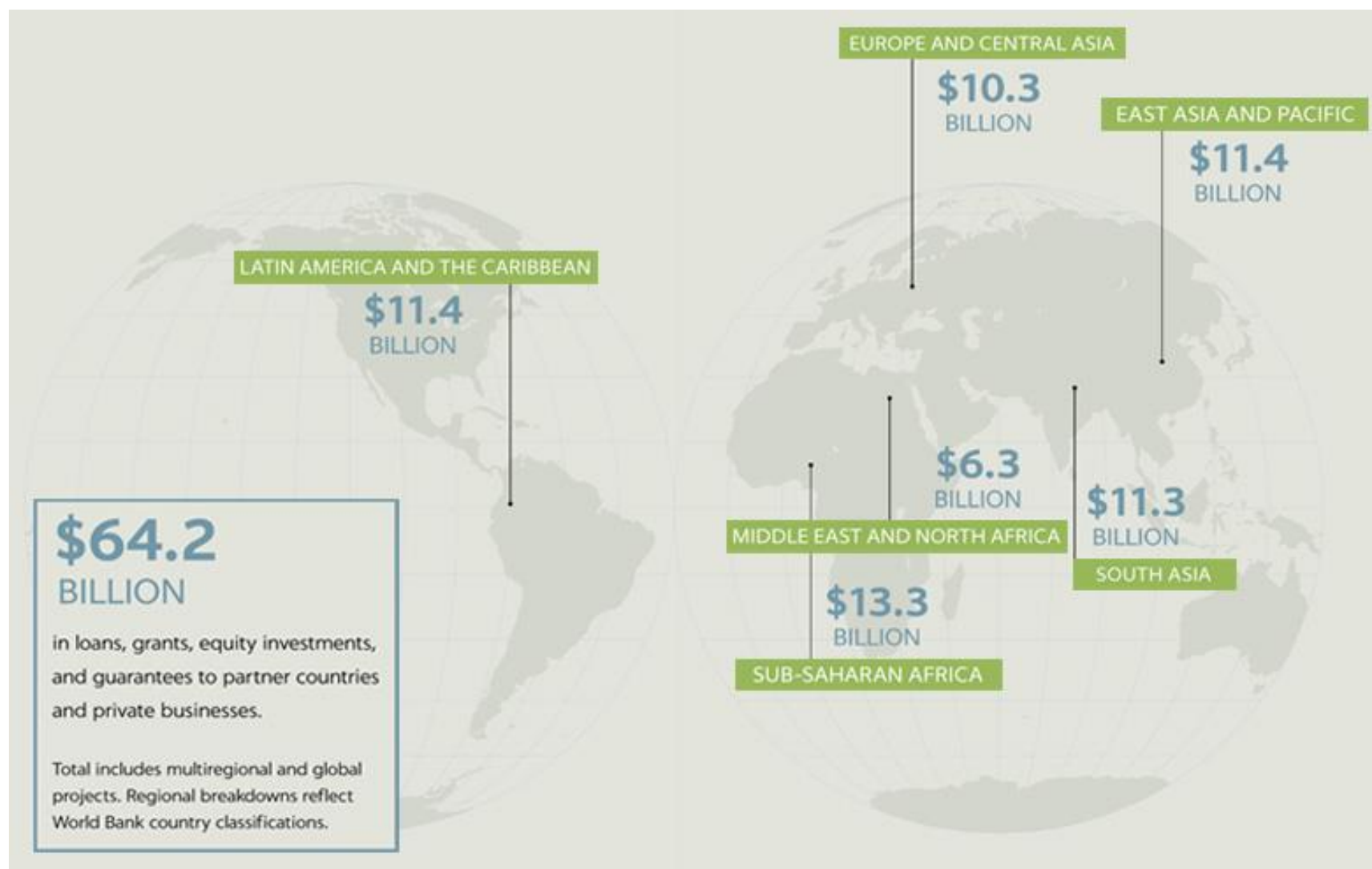
**June 2017**



Figure 2  
**Five Agencies – One Group**

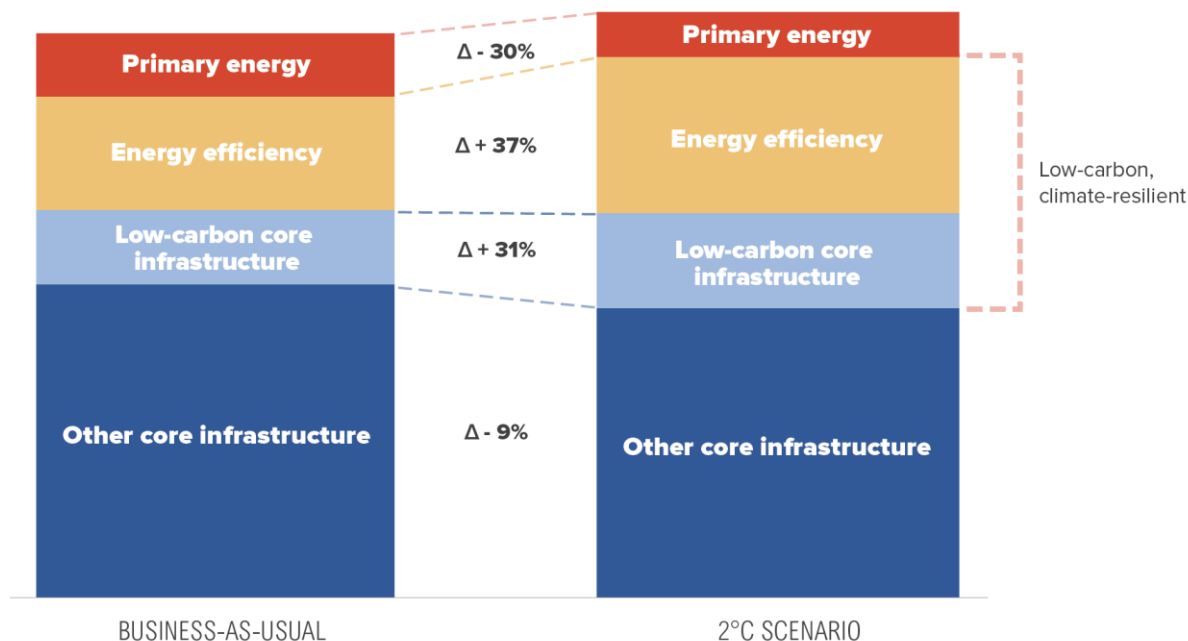


# Supporting developing countries across the world



# Opportunity knocks.. \$90 trillion in needed infrastructure spending

Change in the scale and composition of infrastructure spending



- Primary energy: extraction of oil, gas and coal
- Energy efficiency: buildings, energy and transportation
- Low-carbon core infrastructure: renewable energy, nuclear, CCS, low-carbon transport (e.g. light rail and Bus Rapid Transit systems), climate-proofed water and sanitation including some adaptation infrastructure (e.g. sea walls and flood protection)
- Other core infrastructure: standard water/sanitation, high-carbon transport (e.g. roads), energy production, and telecommunications

# What Paris means for global investments

SHADES OF GREEN: INVESTMENT POTENTIAL BY REGION AND SECTOR (\$ BILLION)

	Wind	Solar	Biomass	Small Hydro	Geothermal	All Renewables	Electric Transmission & Distribution	Industrial Energy Efficiency	Buildings	Transport	Waste	Subtotal
East Asia Pacific	231	537	48	34	16	866	392	143	13,235	1,357	53	16,046
Latin America and Caribbean	118	44	45	11	14	232	0	21	901	1,460	26	2,640
South Asia	111	211	16	0	0	338	0	85	1,543	255	13	2,234
Europe and Central Asia	51	39	6	7	6	109	0	57	410	78	11	665
Sub-Saharan Africa	27	63	3	3	27	123	0	0	153	499	8	783
Middle East and North Africa	50	46	0	1	0	97	21	1	92	50	4	265
Total Climate-Smart Investment Potential by Sector (\$ billion)	588	940	118	56	63	1,765	413	307	16,334	3,699	115	22,633

From 2016 to 2030, based on indicative NDCs

# Role of financial markets



## World Bank Green Bond Highlights:

- **Green Bonds:** 125 World Bank (IBRD) Green Bonds issued in 18 currencies totaling US\$9.1 billion, of which US\$5.7 billion was outstanding as of June 30, 2016.
  - **Eligible Green Bond Projects:** 90 Green Bond eligible projects with commitments totaling US\$15.9 billion. Disbursements have commenced for 84 Green Bond eligible projects in 24 countries with commitments totaling US\$14.1 billion. A total of US\$6.6 billion in Green Bond proceeds has been allocated to support the financing of disbursements to these projects.
  - **Examples of Impact Results**
    - US\$2.4 billion commitments to 10 renewable energy projects is expected to result in 2,359 MW of renewable energy capacity<sup>1</sup> – equivalent to the total installed capacity of Latvia in 2014.<sup>2</sup>
- US\$3.9 billion has been committed to improve public transportation in emerging countries. In 13 of these projects with IBRD commitments totaling US\$2.3 billion, public transport ridership will increase by 2.3 million passengers per day

**Table 2: MDB Climate Finance, 2015** (in USD million)

MDB	Adaptation Finance	Mitigation Finance	MDB Climate Finance
ADB	356	2,561	2,917
AfDB	396	963	1,359
EBRD	244	2,973	3,217
EIB	365	4,772	5,137
IDBG	270	1,474	1,744
WBG	3,393	7,329	10,722
<b>TOTAL</b>	<b>5,024</b>	<b>20,072</b>	<b>25,096</b>

Notes:



# Multilateral climate funds play an important niche role

## Maximizing the value and potential of the Climate Investment Funds (CIFs)

### WBG experience with CIF resources:

- The CIFs have been highly effective in supporting climate-smart development in 72 countries, with \$8.3b pledged through four funding windows (\$4.1b allocated to the WBG) leading to \$58b in co-financing.



#### Clean Technology Fund (CTF):

- \$5.8b (\$2.8b allocated to the WBG)
- 3.3 GW renewables installed to date
- \$3.8b approved expected to mobilize \$38b in co-financing

#### Forest Investment Partnership (FIP):

- \$758m (\$432m allocated to the WBG)
- 28m ha of forests expected to be under improved management
- \$603m allocated expected to mobilize \$985m in co-financing

#### Pilot Program Climate Resilience (PPCR):

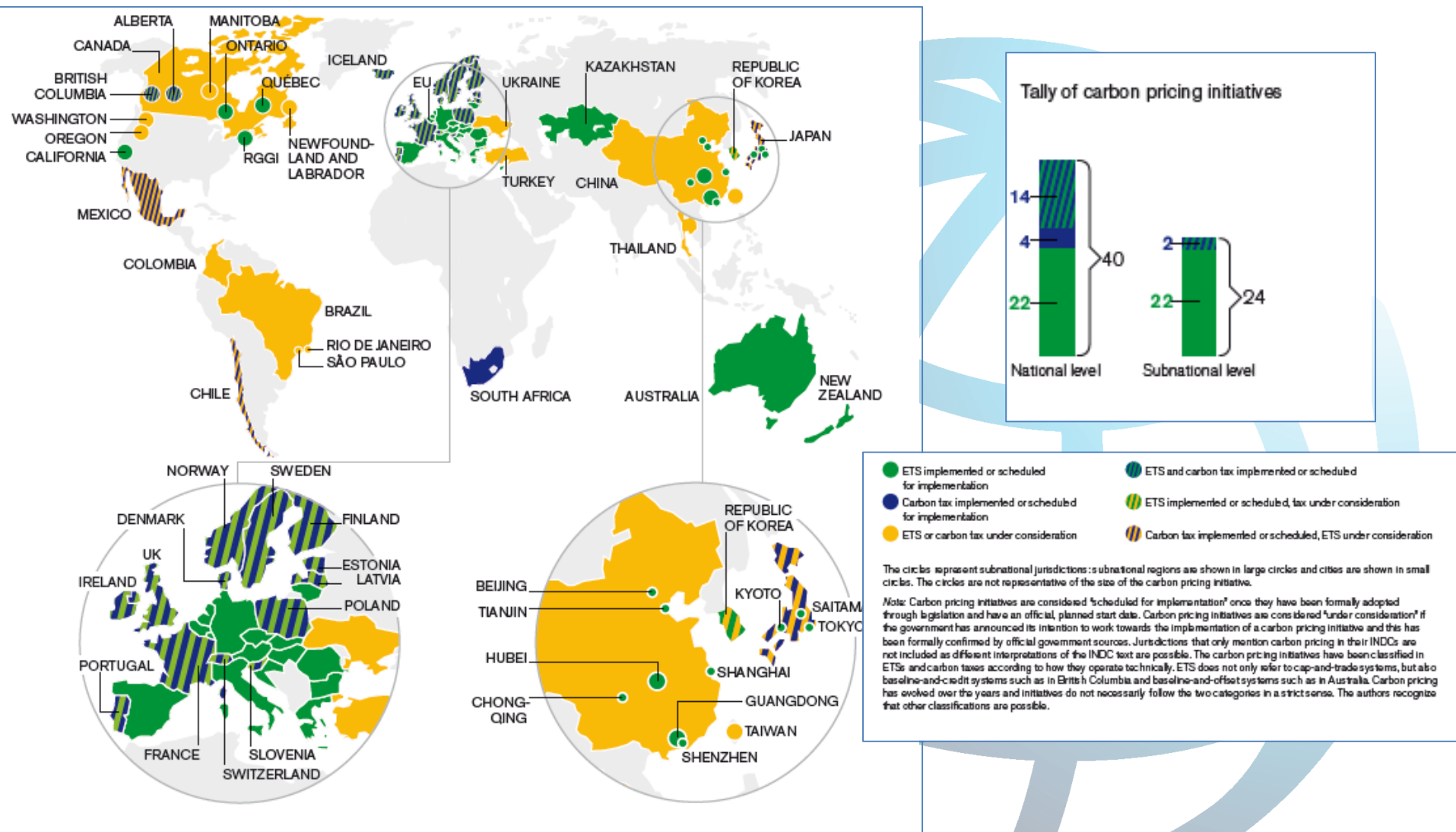
- \$1.2b (\$563m allocated to the WBG)
- Expected to support 39.6m people to cope with adverse effects of climate change
- \$939m approved expected to mobilize \$2b in co-financing

#### Scaling Up Renewable Energy Program (SREP):

- \$839m (\$345m allocated to the WBG)
- 2,600 GWh to be generated annually by endorsed projects
- \$264m approved expected to mobilize \$1.9b in co-financing



# Carbon pricing is gaining traction around the world.... with more to come



## Update on WBG CCAP along Four Priorities

### Priority I

**Supporting Transformational Policies and Institutions:** Deep economic transformations need to be enabled by a supportive policy and investment environment and stronger institutional capacity that redirects investment flows, including public and private as well as international and domestic capital.

### Priority II

**Leveraging Resources:** Meeting global climate goals will require the crowding in of much higher levels of private sector finance and investment.

### Priority III

**Scaling Up Climate Action:** To accelerate transformation and develop new solutions, the WBG will increase its investments with climate co-benefits, focusing on a few high-impact areas and rebalancing its portfolio with more focus on adaptation and resilience.

### Priority IV

**Aligning Internal Processes and Working with Others:** The climate challenge can only be met through collective action and partnerships. The CCAP will strengthen WBG partnerships, engage in focused global advocacy, develop and share knowledge and solutions, and align internal processes to support implementation.



# Highlights in the energy sector

*The WBG is implementing transformative projects to scale up clean energy production and displace fossil fuels*

## *Upstream support plus concessional finance: geothermal in Indonesia*

- The 'Geothermal Energy Upstream Development Project' approved in February 2017 will create a resource risk mitigation facility for government-sponsored drilling. It leverages climate and public funds (\$49m from the CTF, \$6.25m from the GEF, and \$49m from the Indonesia Geothermal Fund) to support commercial investments targeting 65 MW across 4-5 projects.
- The 'Geothermal Clean Energy Investment Project' is nearing completion, and deployed 150 MW of clean geothermal power – a 10% increase in Indonesia's geothermal installed capacity that is expected to avoid 1.1m tCO<sub>2</sub>. Financing came from across the WB, with a \$125m CTF loan and a \$175m IBRD loan. The new capacity displaces coal from two subprojects (at Ulubelu and at Lahendong).



## *'Scaling Solar' taking off in Zambia*

- An IDA payment guarantee and IFC financing have been recently approved in Zambia as the first implementation of the WBG's 'Scaling Solar'. This is a replicable, standardized program that seeks to enable an increase in solar capacity development in Sub-Saharan Africa.
- The IDA payment guarantee back-stopped the Zambian utility/off-taker's liquidity obligations, and \$60m of investment has been mobilized (including \$15m of private capital). Auctions there resulted in some of the lowest tariffs in Africa, while two projects totaling 70 MW have been awarded.

## *Using guarantees to scale up large renewables in Vietnam*

- A MIGA-issued guarantee for a total of \$240m is facilitating the construction and operation of a large hydropower project in Hoi Xuan, Vietnam that is expected to reduce 222,000 metric tons of CO<sub>2</sub> equivalents annually.



*The WBG is investing in key policy areas, supporting transformational initiatives and helping clients to 'get the prices right'*



### ***Reducing energy subsidies: Electricity and fuel price reforms in Egypt***

- Underpricing has been a major driver of excessive energy consumption in Egypt, so a WBG development policy loan (DPL) series has supported electricity and fuel price reforms from 2015.
- Electricity and fuel tariffs have been raised in the past three years, and energy subsidies fell from 6.6% of GDP in FY13/14 to 2.7% for FY16/17.
- These reforms incentivize efficiency and make distributed solar more attractive. Peak demand fell from 31.5 GW in 2015 to 29.5 GW in FY15/16 largely on account of tariff reforms.



### ***Country-level Carbon Pricing***

- WBG is helping clients to 'get the prices right' on carbon at the country level.
- The Partnership for Market Readiness (PMR) has supported the design and implementation of key building blocks of China's national emissions trading system, as well as for carbon taxes in Chile and South Africa.
- PMR engages with clients as they assess, prepare and implement carbon pricing instruments.
- Ethiopia and Cote d'Ivoire – with WBG support – are leading the way on carbon pricing in Africa.



### ***Mainstreaming climate into ministries of finance***

- The WBG and the Moroccan COP22 Presidency launched the Climate Action Peer Exchange (CAPE) initiative in November 2016 to promote mainstreaming climate into budget/planning processes in MOFs.
- The first Partnership Meeting will be held during the 2017 Spring Meetings.
- CAPE provides a platform for peer exchange among ministries of finance and planning to discuss fiscal policy instruments to implement NDCs, the countries' climate commitments.



# World Bank is working alongside global leaders to address climate change



Isabelle Kocher, ENGIE CEO (Video-Gallery/2017/5/25/Isabelle-Kocher-Engie-Ceo-1)  
May 25, 2017



Mr. Daniel Kablan Duncan, Prime Minister, Cote D'Ivoire (Video-Gallery/2017/4/11/Cote-Divoire)  
Dec 19, 2016



Mr. Mauricio Cardenas, Minister Of Finance, Colombia (Video-Gallery/2017/4/11/Mr-Mauricio-Cardenas-Minister-Of-Finance-Colombia)  
Dec 11, 2016



Oleg Deripaska, President, UC Rusal (Video-Gallery/2016/10/4/Oleg-Deripaska-President-Uc-Rusal)  
Oct 4, 2016



CPFL Energia Support Carbon Pricing Leadership Coalition (Video-Gallery/2016/9/7/Cpfl-Energia-Support-Carbon-Pricing-Leadership-Coalition)  
Sep 7, 2016



Marcelo Mena, Vice-Minister Of Environment, Chile (Video-Gallery/2016/5/3/Marcelo-Mena-Vice-Minister-Of-Environment-Chile)  
May 3, 2016



Alexander Stubb, Minister Of Finance, Finland (Video-Gallery/2016/8/11/Sawjydvcbosg9hetogggw8jw7hl)  
Aug 11, 2016



Mats Andersson, CEO, AP4 (Video-Gallery/2015/4/7/Mats-Andersson-Ceo-AP4)  
Apr 7, 2015



Christy Clark, Premier Of British Columbia (Video-Gallery/2015/3/23/Christy-Clark-Premier-Of-British-Columbia-Canada)  
Mar 23, 2015



Thank you

