

Basic Information					
Approval Year	:	2018	Region	:	REG
Team Leader	:	Henriquez Leblanc, Pauline	Country	:	Regional
Taxonomy	:	Client Support	Department	:	IFD
Fund	:	CTY,ORC-CTY	Sector	:	ST - Research And Development Systems
Approval Number	:	ATN/OC-16914-RG	Sub Sector	:	RES
Execution Agency	:	US-IDB			
Execution Status	:	Closed			
Operation Objective	:	Contribute to increase the growth of the economies of the region through the improvement of the competitiveness of the construction sector as a result of the adoption of BIM. The specific objectives are: (i) to elaborate action plans to promote the adoption of BIM at the country or sub-national level; (ii) build capacities in public and private actors for the use of BIM through the training of talent, the development of bidding pilots of work with BIM requirements, leveraging the State's purchasing capacity and the Bank's financing, and the elaboration of standards and standards that facilitate its application; and (iii) sensitize and articulate the actors of the public, private and academic sector on the opportunities offered by the BIM and other new technologies.			
Financial Information					
RG-T3252					
ATN/OC-16914-RG:ORC		Original	Current	% of Current Amount Financed	
Amount Financed		\$800,000.00	\$774,429.71		
Disbursed Amount		N/A	\$774,429.71	100.00 %	
Commitments not yet disbursed Amount		N/A	-	0.00 %	
Available Amount		N/A	-	0.00 %	
Final Disbursement Date		Sep 5, 2022			
Status Update					

Despite a slowdown, during the pandemic period, activities got up to speed in 2022 and allowed a successful completion of this TC. Over the last 12 months of execution of this TC, the main results achieved were: (i) new pilot projects in Argentina and Uruguay with a BIM annex in the bidder documents (five in total). In Argentina, two entities dependent on the Ministry of Public Work were supported (Corredores Viales and Vialidad). As a result, multiple projects will be incorporating BIM through a loan from the IDB with the Ministry of Public Work and the ones financed by this TC will serve shortly as inputs for the design of the updated BIM strategy of the country, which will be funded by this new loan as well. In Uruguay, CND (the public agency beneficiary of the TC), asked for the IDB support to help implementing strategies and pilot projects with other public entities. As a result, the TC provided technical support to build BIM capacities in the National Housing Agency and to implement a BIM project. (ii) Methodology tools (two in total). As part of the closing of this TC and in order to consolidate and document the activities of this TC, a guide for the implementation of BIM in public projects was published (1.9k download in the first month). The guide is a joint effort between the project team and Plan bim Chile, one of the beneficiaries and has been presented both to IDB specialist working on construction or supervision of infrastructure and public entities in charge of BIM agendas. The second product was a BIM impact assessment methodology which was piloted in Uruguay, in one of the first pilot projects supported by this TC (link to a summary of the results: https://idbg.sharepoint.com/teams/EZ-RG-TCP/RG-T3252/_layouts/15/DocIdRedir.aspx?ID=EZSHARE-1419052793-7).

Advance in the Achievement of Outcome and Outputs

Advance in the Achievement of Outcome

1 . Increase public and private capacities in LAC countries for BIM adoption to improve the competitiveness of the construction sector

When the TC started, only one of the recipient countries has a BIM strategy (Chile, 2016). Thanks to this TC, through direct financing or externalities, four of the five recipients’ countries now have national BIM strategies (Argentina, Chile, Costa Rica and Uruguay). Additionally, several action lines included in those strategies have been supported by this TC: a series of trainings for the public and private sector including an elearning platform (+12k training provided), the publication and translation of the first standard of the region, among others. In term of pilot projects, 38 projects have been supported to date, allowing a demonstration effect and installing lasting capacities within executing agencies. In conclusion, this TC has been crucial to strengthen BIM public and private capacities, which in turn fostered a significant BIM adoption in both sectors.

Advances in Execution
1. BIM action plans
Component Cost: \$93,768

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	A
1.1 * Diagnostics and assessments completed	Diagnosis of BIM adoption and related enabling factors, and roadmaps (CTY)	Diagnostics (#)	0	2018	Consulting reports	Digital Economy	Physical			
							2018	0	0	1
							2019	3	2	2
							2020	2	2	0
							2021	0	0	0
							2022	0	0	1
							EOP 2022	5	3	4
							Financial			
							2018	0		21000
							2019	78000	57000	33810
							2020	52000	61271.7	4000
							2021	0	0	1039.25
							2022	0	0	31430
							EOP 2022	130000	59849.25	91279.25
Advances In Execution: Study to assess the evolution of digital skills in the construction industry based on big data and provide a comparative analysis with countries with a long trajectory of BIM (USA and UK).										

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	A
1.2 ^s Workshops organized	Workshops with public and private players for the collection of information and the validation of action plans (CTY)	Workshops (#)	0	2018	Invitations sent	Digital Economy	Physical			
							2018	2	0	5
							2019	3	3	3
							2020	0	0	0
							2021	0	0	0
							2022	0	0	1
							EOP 2022	5	8	9
							Financial			
							2018	5000		13345.3
							2019	15000	15000	20573
							2020	0	0	0
							2021	0	0	0
							2022	0	0	12075
							EOP 2022	20000	33918.3	45993.3

Advances In Execution: Support to the Colegio Federado de ingenieros y arquitectos of Costa Rica for the development of the BIM Seminar CFIA Congress 2022 "BIM: Transforming Knowledge". During the seminar the result of the BIM maturity assesment of Costa Rica was disclosed, experience in BIM implementation and applied cases were showcased.

2. BIM capacity generation

Component Cost: \$353,330

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	A
2.2 º Pilot interventions designed	Pilots design and implementation (CTY)	Pilots (#)	0	2018	Consulting contracts	Digital Economy	Physical			
							2018	1	0	0
							2019	2	3	3
							2020	2	2	6
							2021	0	0	0
							2022	0	0	5
							EOP 2022	5	9	14
							Financial			
							2018	10000	0	0
							2019	105000	115000	90962
							2020	195000	133802.15	69350
							2021	0	0	62879.11
							2022	0	0	38500
EOP 2022	310000	223191.11	261691.11							
Advances In Execution: Uruguay: Support to the National Development Corporation (CND) in the execution of BIM implementation workshops for the National Housing Agency for the pilot projects Argentina: Support in the implementation of BIM in 4 pilot projects of organizations dependent on the Ministry of Public Works (National Highway Directorate, Corredores Viales SA, National Entity of Water Sanitation Works and Public Works Directorate)										

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	A
2.3 ^s Diagnostics and assessments completed	Revision of regulation, standards and processes (CTY)	Diagnostics (#)	0	2018	Consulting contracts	Digital Economy	Physical			
							2018	0	0	1
							2019	2	1	2
							2020	1	1	0
							2021	0	0	0
							2022	0	0	1
							EOP 2022	3	3	4
							Financial			
							2018	0	0	3714.18
							2019	20000	16285.82	0
							2020	40000	56285.82	0
							2021	0	0	0
							2022	0	0	6049.29
							EOP 2022	60000	3714.18	9763.47

Advances In Execution: The piloting of the BIM impact assesment methodology was conducted in Uruguay in one of the CAIF center supported by the Bank. It allowed to measure the positive quantitave impact on costs and time.

3. Knowledge and Dissemination

Component Cost: \$100,872

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	A
3.1 * Diagnostics and assessments completed	Mapping out of the use of BIM in LAC and public policy guidelines (CTY)	Diagnostics (#)	0	2018	Consulting report	Digital Economy	Physical			
							2018	0	0	0
							2019	1	1	0
							2020	0	1	1
							2021	0	0	1
							2022	0	1	0
							EOP 2022	1	3	2
							Financial			
							2018	0	0	0
							2019	50000	50000	0
							2020	0	50000	33600
							2021	0	0	1401
							2022	0	0	0
							EOP 2022	50000	35001	35001

Advances In Execution: During 2021, the final product of the first Bolivian survey on BIM Use was delivered. In addition to this, a consultant was hired to work on a case study on the BIM public policy framework in Chile. The analysis is expected to be presented to the new authorities in 2022.

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	A
3.2 ^s Non-commercial books published	Case studies and handbook (CTY)	Books (#)	0	2018	Ezshare number of the digital material	Digital Economy	Physical			
							2018	0	0	0
							2019	1	1	1
							2020	1	1	0
							2021	0	0	0
							2022	0	2	2
							EOP 2022	2	3	3
							Financial			
							2018	0	0	0
							2019	25000	25000	4867
							2020	25000	45133	0
							2021	0	0	19800
							2022	0	0	59854.71
EOP 2022	50000	24667	84521.71							
Advances In Execution: The BIM Pilot Project Guide for the public sector was published. The guide is a colaborative initiave between the IDB and Plan bim Chile to consolidate both institutions' experiences in the implementation of BIM at the project level. Additionally, during 2021 and 2022, a tool was developed to measure economic, performance and management impacts of the implementation of BIM in projects in the construction sector.										

Output Indicator	Indicator Detail	Unit Of Measure	Baseline	Baseline Year	Means Of Verification	Theme	Year	P	P(A)	A
3.3 ^s Workshops organized	Technical visits and regional event (CTY)	Workshops (#)	0	2018	Invitations sent	Digital Economy	Physical			
							2018	1	0	1
							2019	3	3	2
							2020	2	2	1
							2021	0	0	1
							2022	0	0	0
							EOP 2022	6	5	5
							Financial			
							2018	40000	0	11453.02
							2019	24000	38273.49	21985
							2020	16000	46561.98	7766
							2021	0	0	0
							2022	0	0	0
							EOP 2022	80000	41204.02	41204.02

Advances In Execution: Pilot project methodology guide: a methodology guide for implementing BIM in projects is currently under development and will be published during the second half of the year (S2 2021). This guide will be based on the methodology developed by the IDB and applied to the various pilot projects financed by this TC. Prior to the elaboration of the guide, a workshop with various divisions and departments of the Bank was organized in order to disseminate internally the key takeaways of the methodology.