Hydropower Solutions
HYPOSO

The HYPOSO project – Hydropower solutions for developing and emerging countries

Small Hydro Latin America

Ingo Ball
HYPOSO Project Coordinator
WIP Renewable Energies
23 June 2021, Virtual

www.hyposo.eu
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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 857851.

Outline

- General information & structure
- Objectives & impact
- HYPOSO in South America

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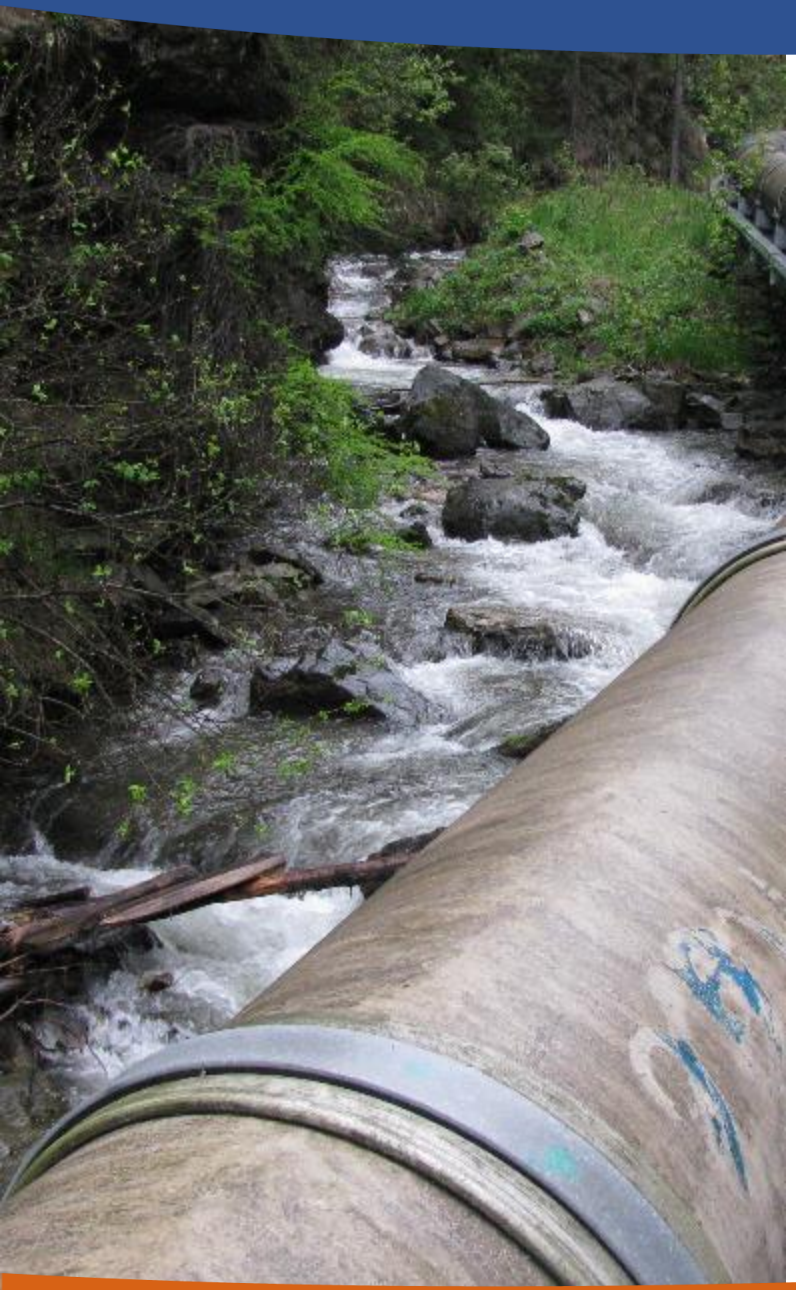

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General information

- Project title: **Hydropower solutions for developing and emerging countries**
- Project acronym: **HYPOSO**
- EU funded project within the **H2020 programme**
- Grant Agreement (GA) No: **857851**
- Starting date of the project: **1 September 2019**
- Duration: **45 months**
- Participants: **13 (5 research organisations – 8 enterprises (4 SME))**
- 11 Countries: **Belgium, Bolivia, Cameroon, Colombia, Ecuador, Germany, Italy, Lithuania, the Netherlands, Poland, Uganda**

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Project Overview

- Support the European hydropower industry

by providing tools to best facilitate and consult selected target regions in Africa and Latin America with their know-how and expertise and enable more technology export for European companies.

- Stimulate the energy transition in developing and emerging countries

by the market uptake support that shall lead to win-win situations and focus on sustainable and locally adapted solutions.

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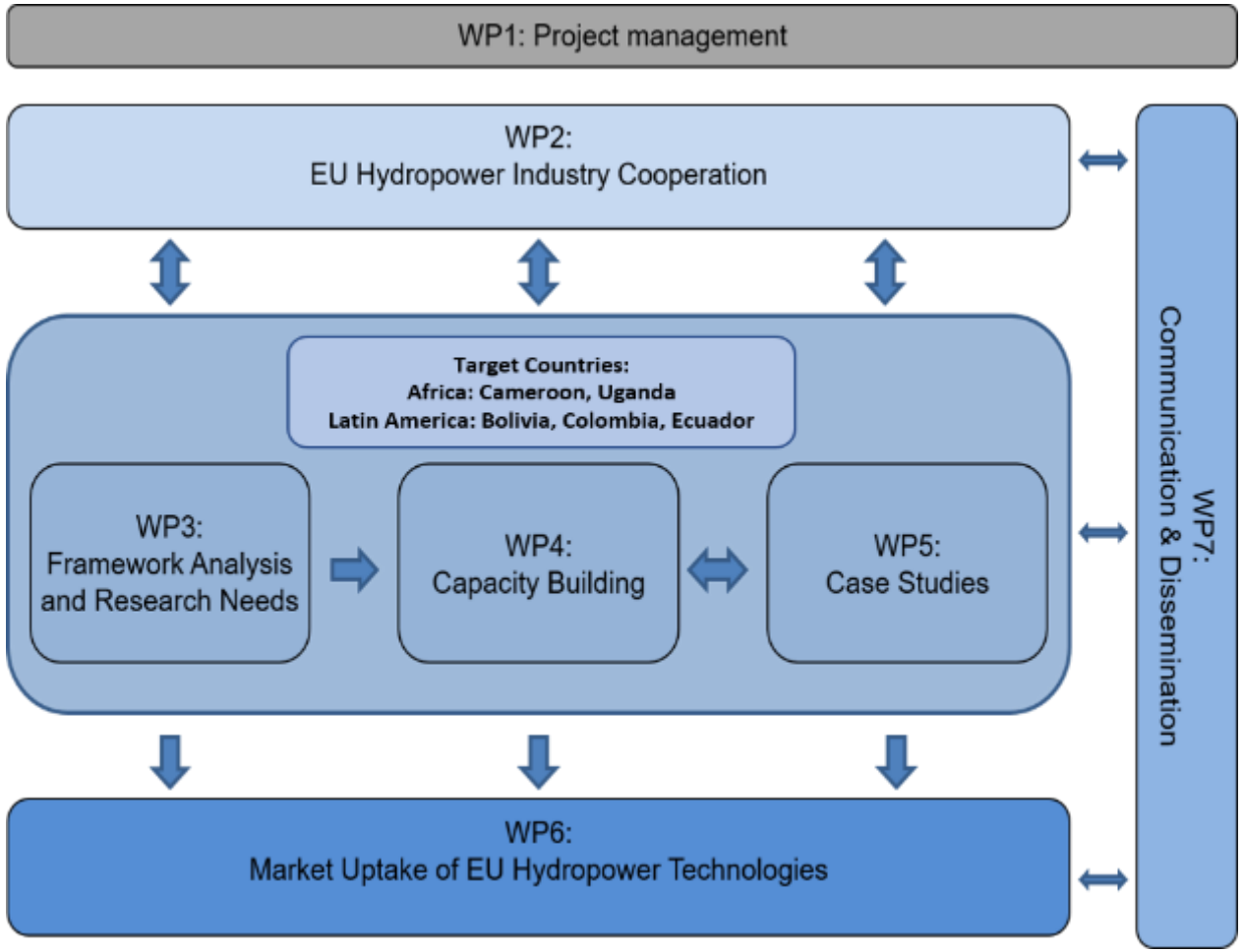
Structure



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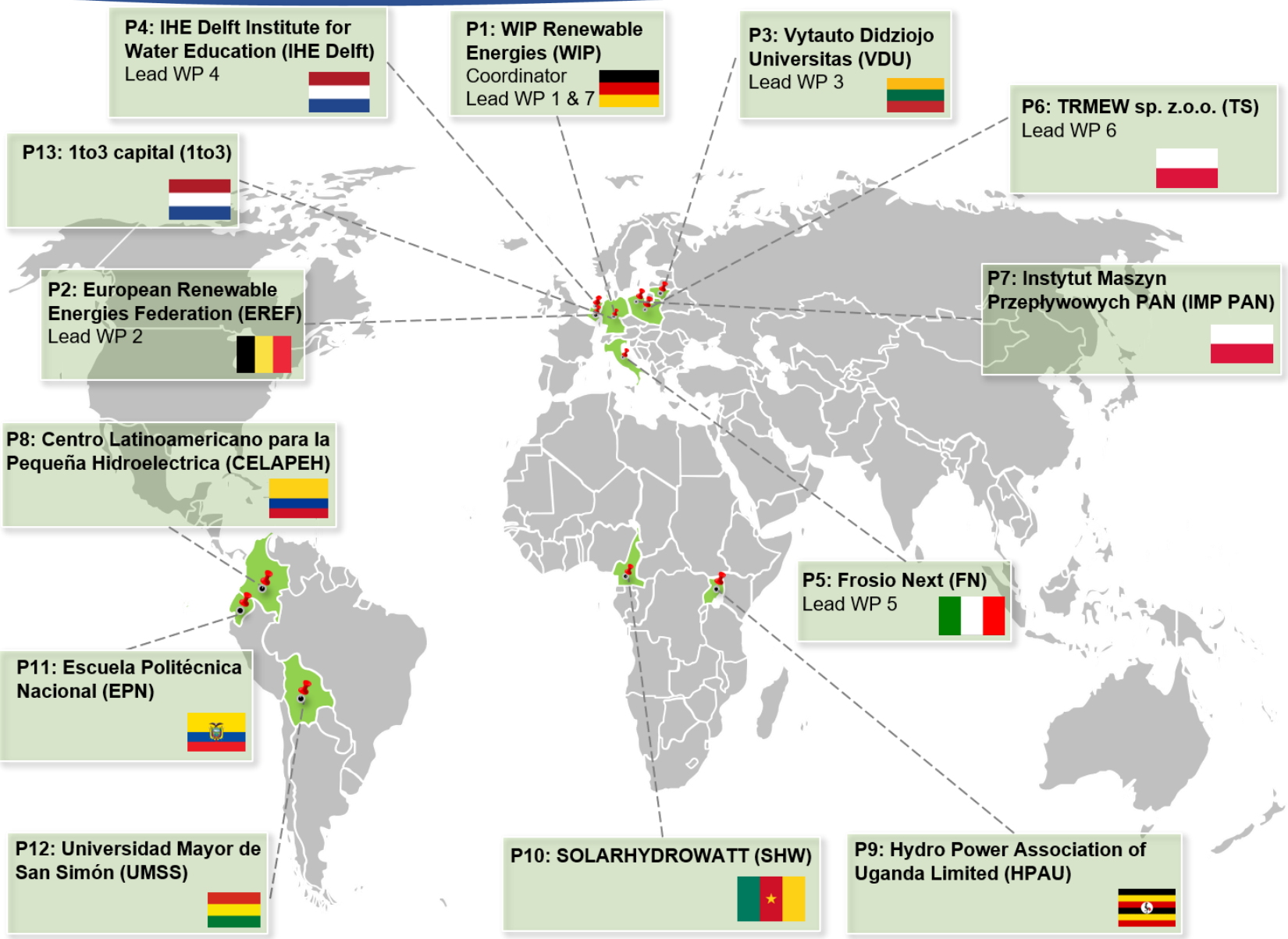

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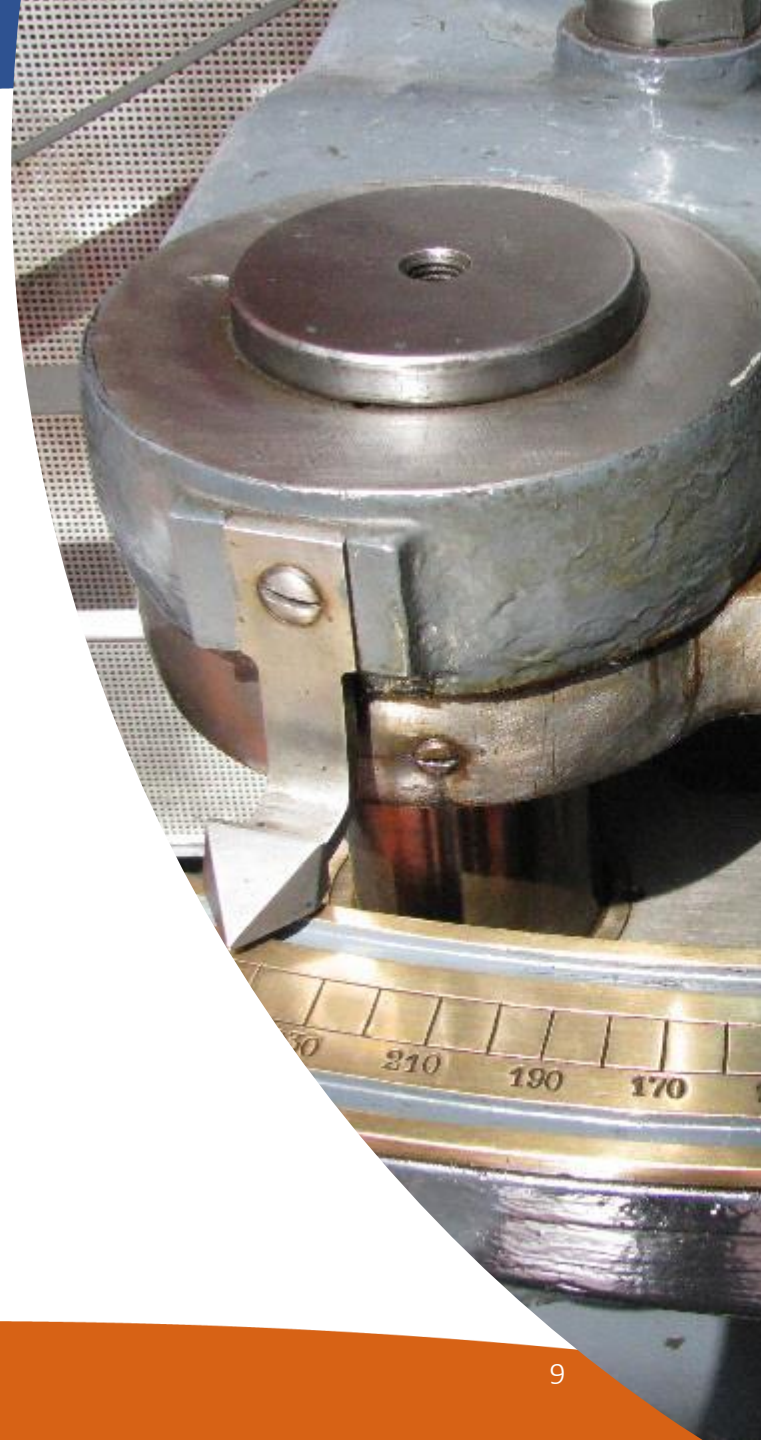
Objectives

- **Mapping** (EU hydropower industry, > 2,000 potential hydropower sites and stakeholders in target countries)
- **Framework analysis** of target countries
- **Capacity building** activities
- **15 Case studies** (5 MoU)
- **Online platform** (providing sector information, enabling contacts)
- **b2b Workshops** (in Colombia, Uganda and the Netherlands)
- **Study tour** in Europe



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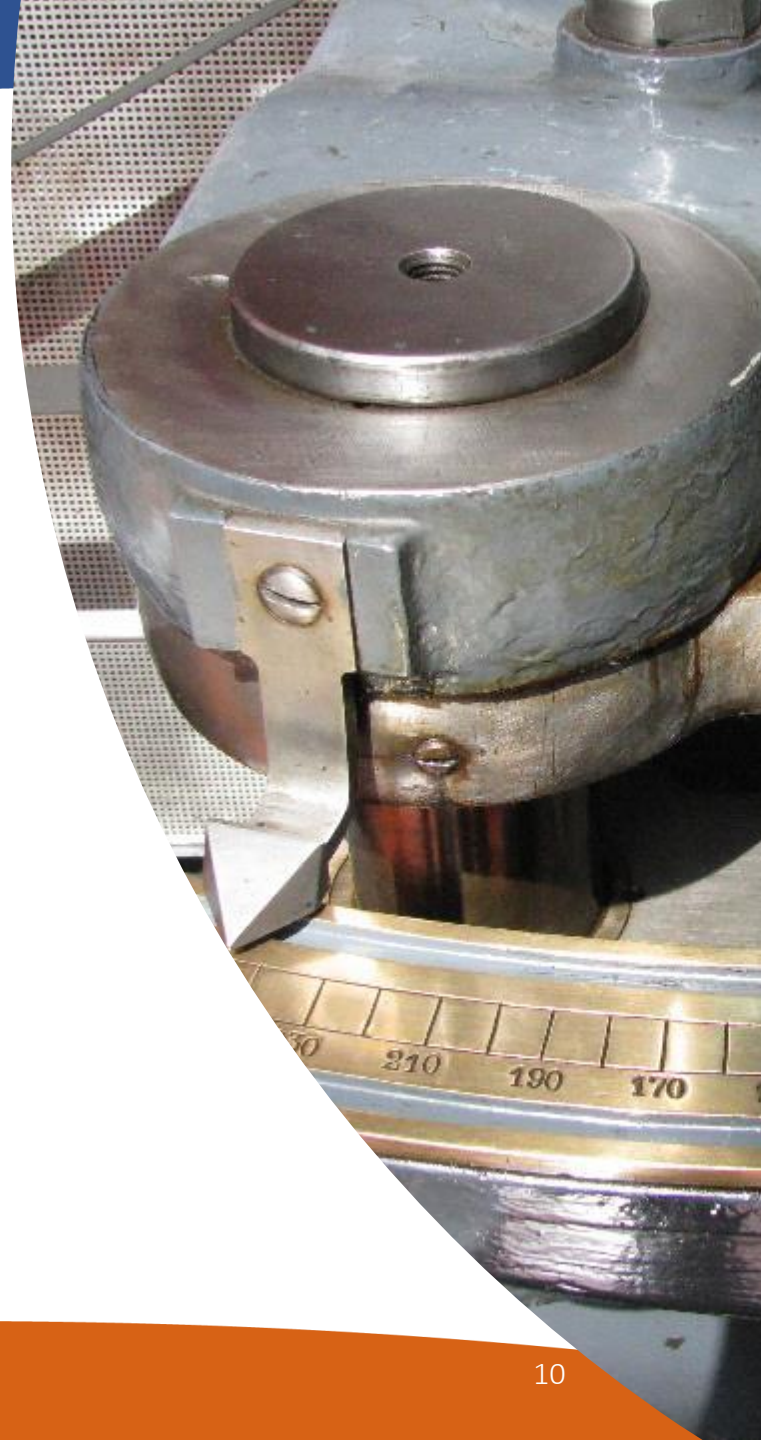

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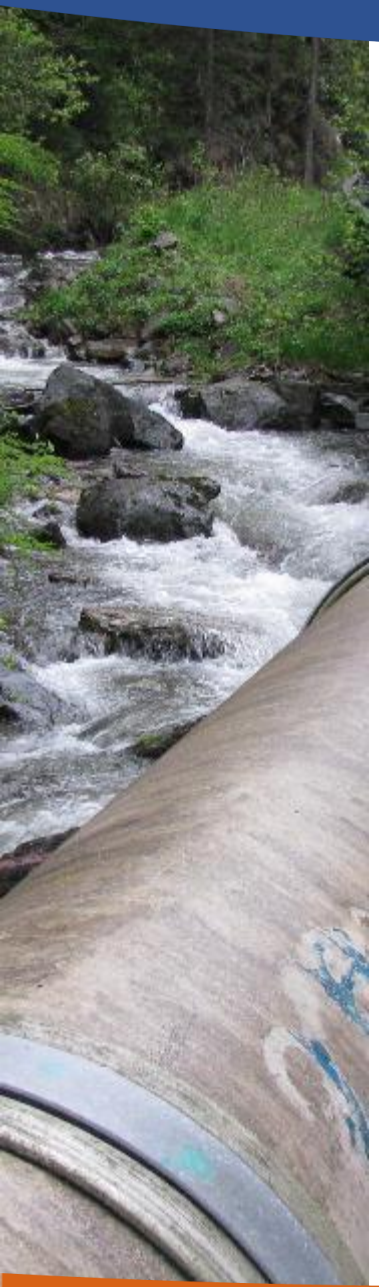

Impact in numbers

Country		Bolivia	Cameroon	Colombia	Ecuador	Uganda	Total
Potential of Small Hydropower (SHP)	Total [MW]	200	970	25,000	296	200	**26,666**
	Remaining %	>23	>99	>99	>65	>70	
Defined capacity limit of SHP [P]		< 5 MW	< 10 MW	< 10 MW	< 10 MW	< 20 MW	
Cost per installed kW		1,300 -8,000 US $/kW					
Goal for installed MW per target country as consequence of HYPOSO (only SHP)		5	10	50	20	5	**90**
Amount of additional EU investment in target countries through project activities, million US $ (roughly 50% of installed cost)		8	15	75	30	8	**136**

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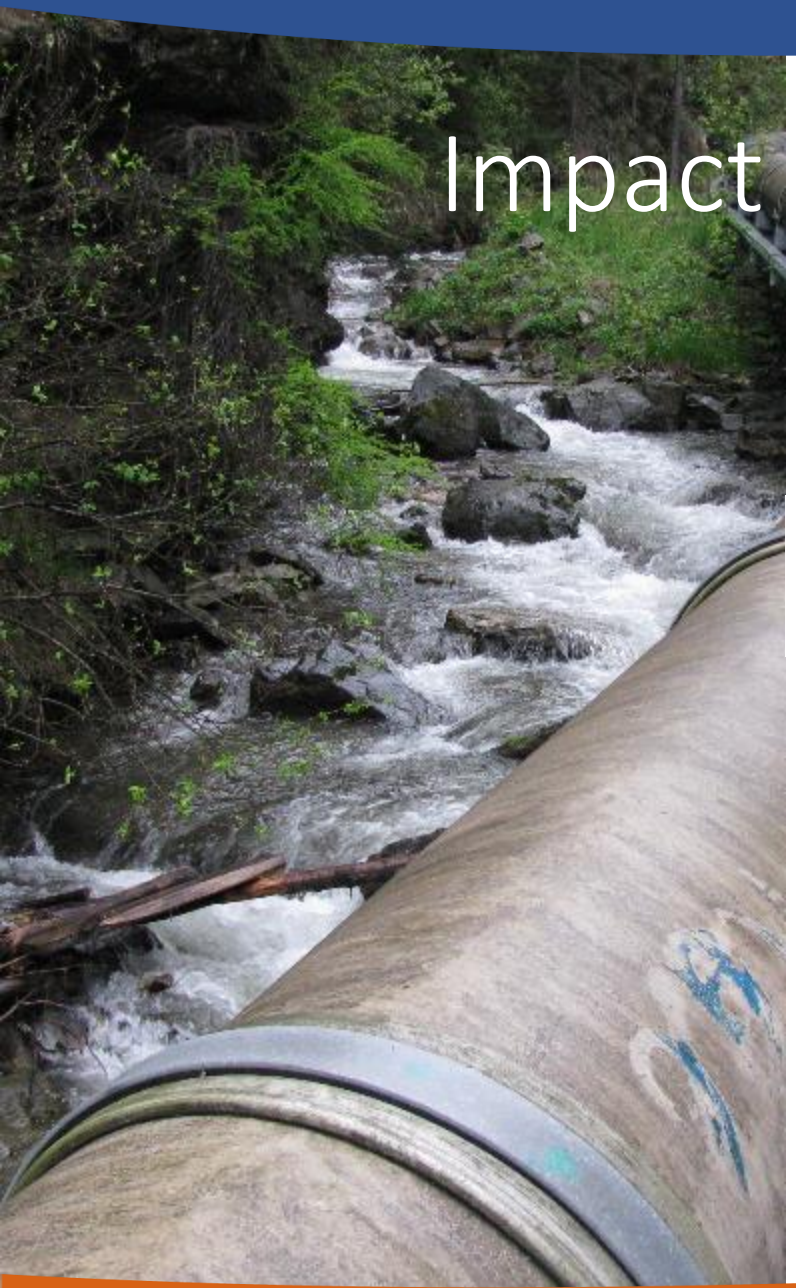

Impact in target countries

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	BOLIVIA	COLOMBIA	ECUADOR	CAMEROON	UGANDA
	increase rural electrification (73%)	increase share of Renewable Energies (10% coal)	increase share of Renewable Energies (37% oil)	increase electrification rate (urban: 57% rural: 22%)	increase electrification rate (urban: 71% rural: 8%)
	➢ HP experts	➢ HP experts	➢ HP experts	➢ HP experts	➢ HP experts
	local jobs	local jobs	local jobs	local jobs	local jobs

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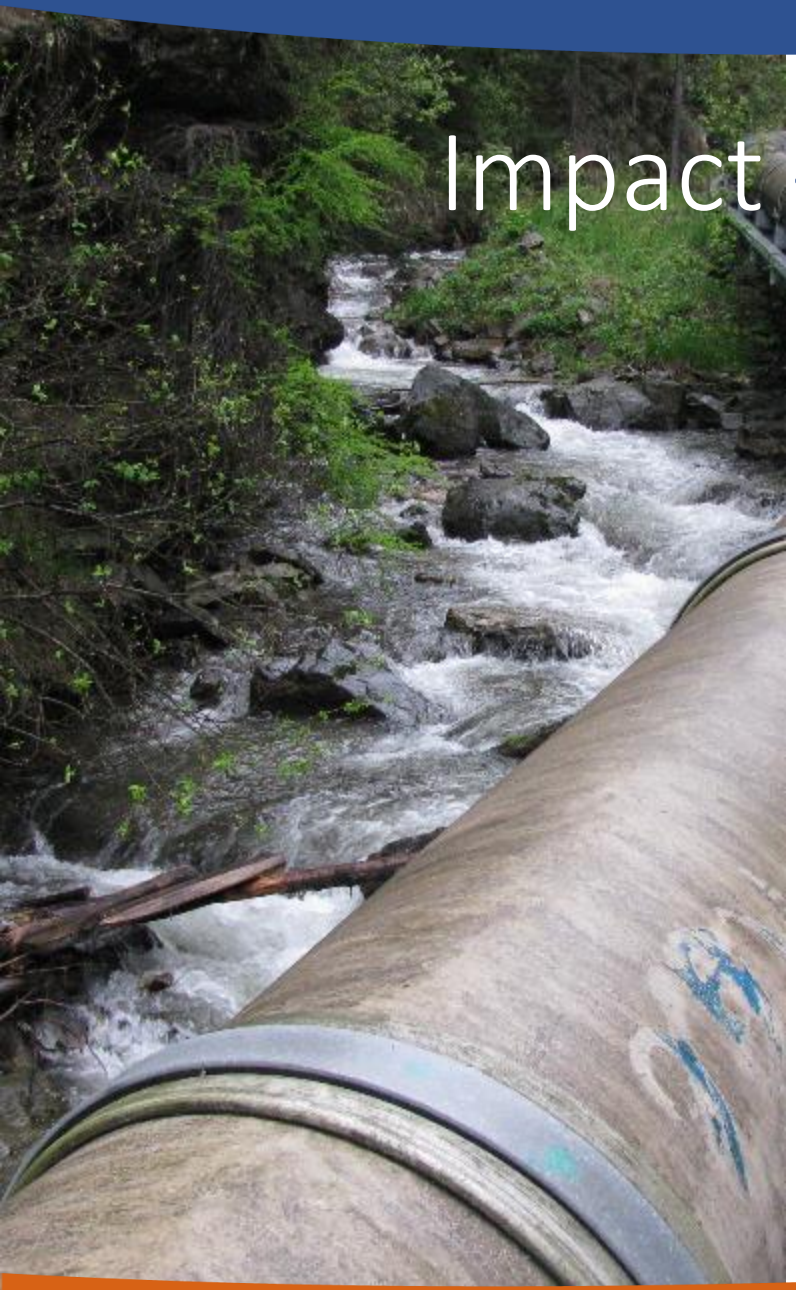

Impact - additional

to

- **facilitating local jobs and wealth creation** (by engaging local communities and authorities into the project activities)

- **leading to additional sustainable development** *in line with UN targets* and *EU programmes*

HYPOSO aims at

- becoming part of the **historical peace process in Colombia** (HYPOSO project partner CELAPEH is promoting the project “Small hydropower for Peace”)

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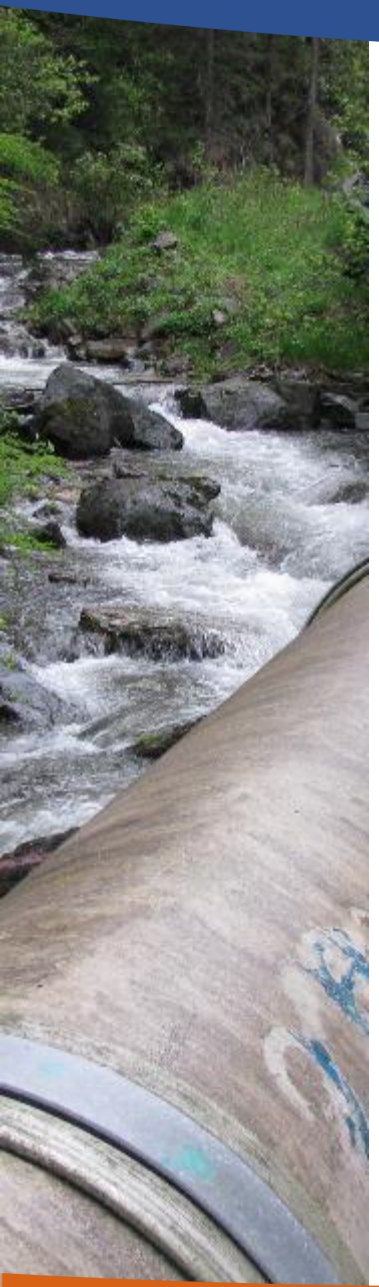

HYPOSO in South America

Most HYPOSO activities are still to come

- **Project Developers' Workshops**
  in Bolivia and Colombia planned in September/October 2021
- **Workshops on Framework Conditions**
  in Bolivia, Colombia, and Ecuador planned until August 2022
- **Capacity Building Courses**
  in Bolivia and Ecuador planned until December 2021
- **3 Case Studies**
  in Bolivia, Colombia, and Ecuador finalized until spring 2023
- **b2b Workshop**
  in Colombia scheduled for 2022

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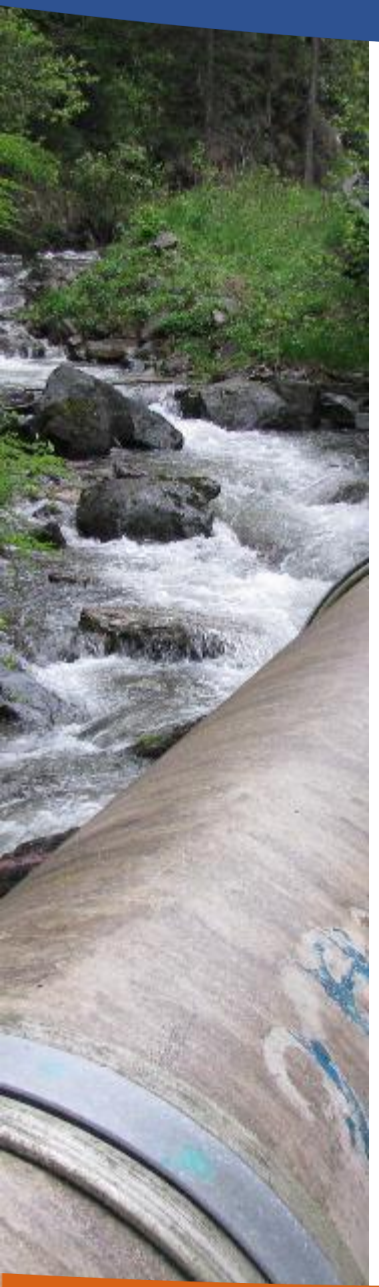

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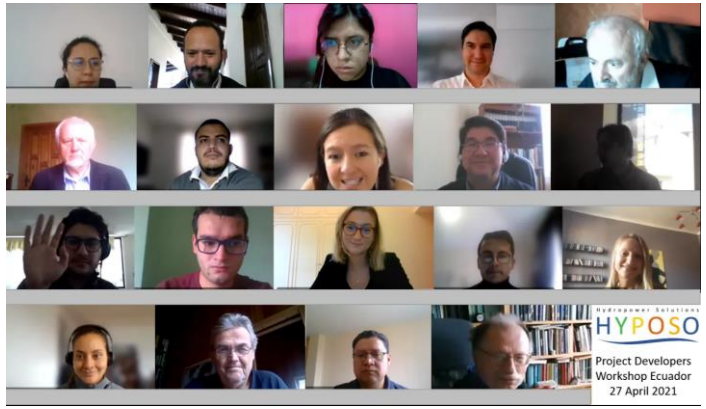
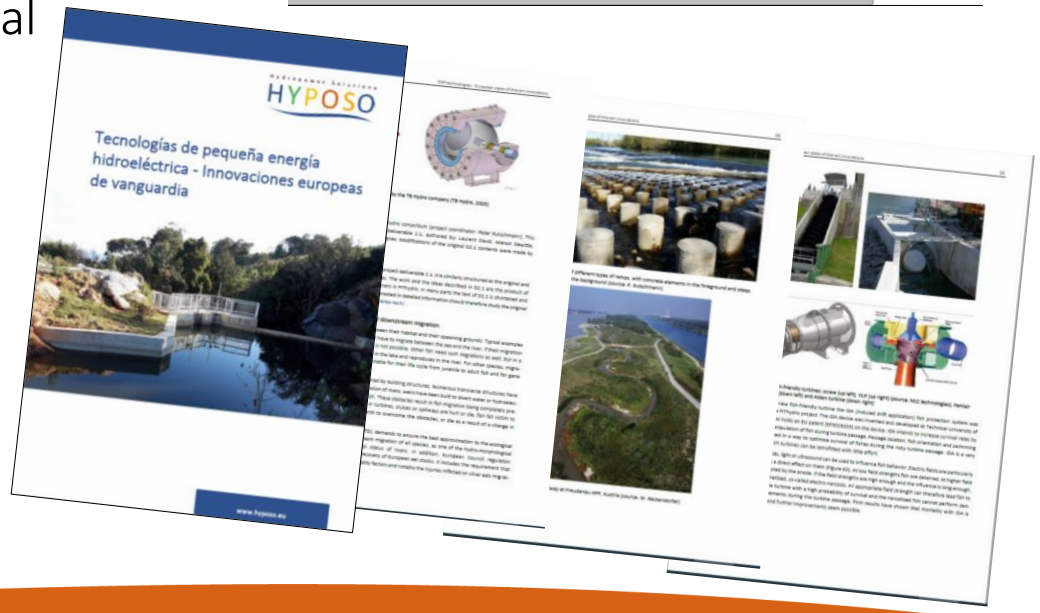
Already happened…

- **Project Developers' Workshop Ecuador**
  on 27 April 2021, virtual format with participants such as MERNNR (Ministerio de Energía y Recursos Naturales No Renovables), INAMHI (Instituto Nacional de Meteorología e Hidrología), CELEC (Corporación Eléctrica del Ecuador), and SHP Palmira-Nanegal



- **HYPOSO Handbook**:
  https://www.hyposo.eu/es/inicio/



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The HYPOSO partners in South America

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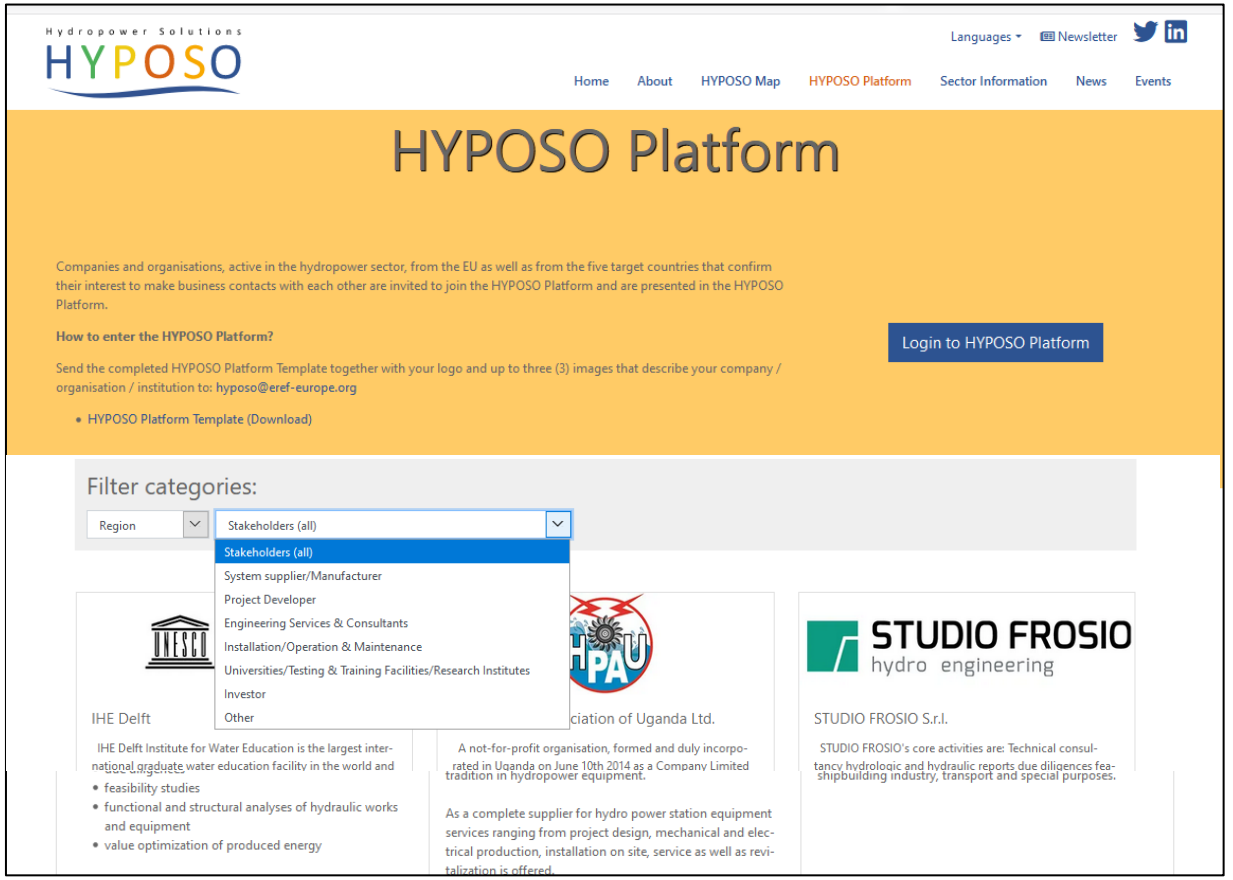
Get involved

Join the *HYPOSO Platform*, an exclusive online forum, free of charge, for stakeholders from the EU and the HYPOSO target countries, meant to facilitate business contacts.

See more at:

https://www.hyposo.eu/en/hyposo-platform/



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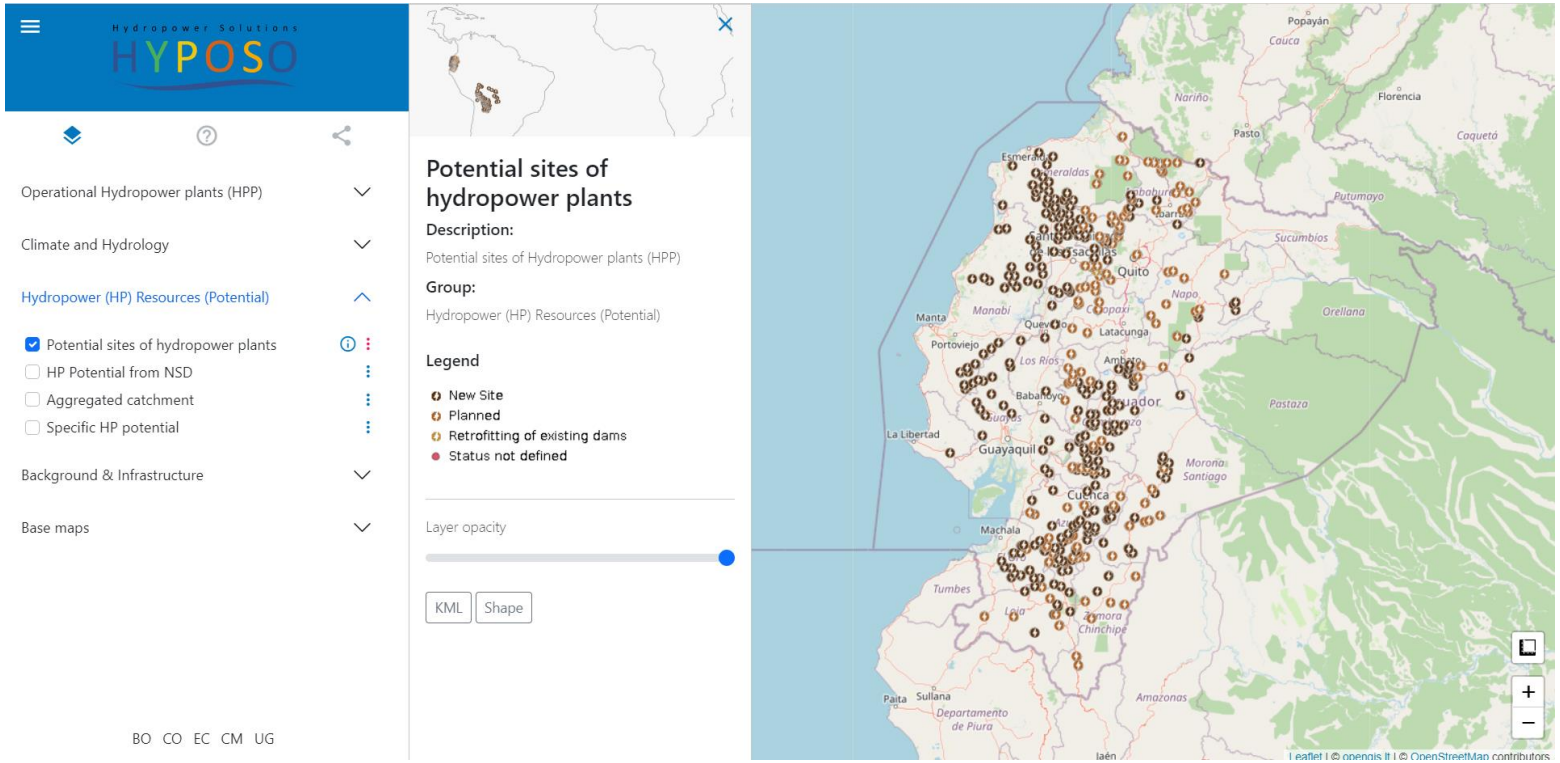
Feature to be available soon

Exclusively via the HYPOSO Platform, the *HYPOSO Map* will be presented soon.

For the five target countries, the HYPOSO Map provides information about background & infrastructure, climate & hydrology, operational hydropower plants, and hydropower resources (i.e., potential sites).



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Thank you!

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