



| **PAVITR**

# Natural & Advanced Technologies for Wastewater Treatment and Reuse in India - Engagement Strategies

EU-India Joint Cooperation Programme on Water Research & Innovation within HORIZON 2020 co-funded by the Department of Science & Technology of India, GoI No. DST/IMRCD/India-EU/WaterCall2/PAVITR/2018(G) dated 31.03.2019 and by the European Commission under Grant Agreement No. 821410



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# PAVITR Project

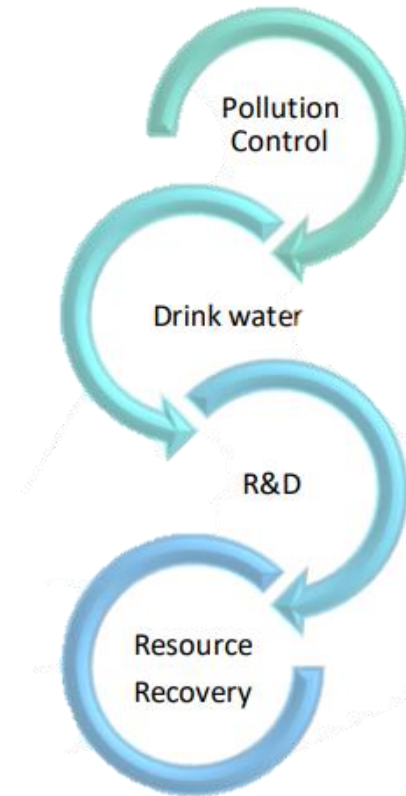
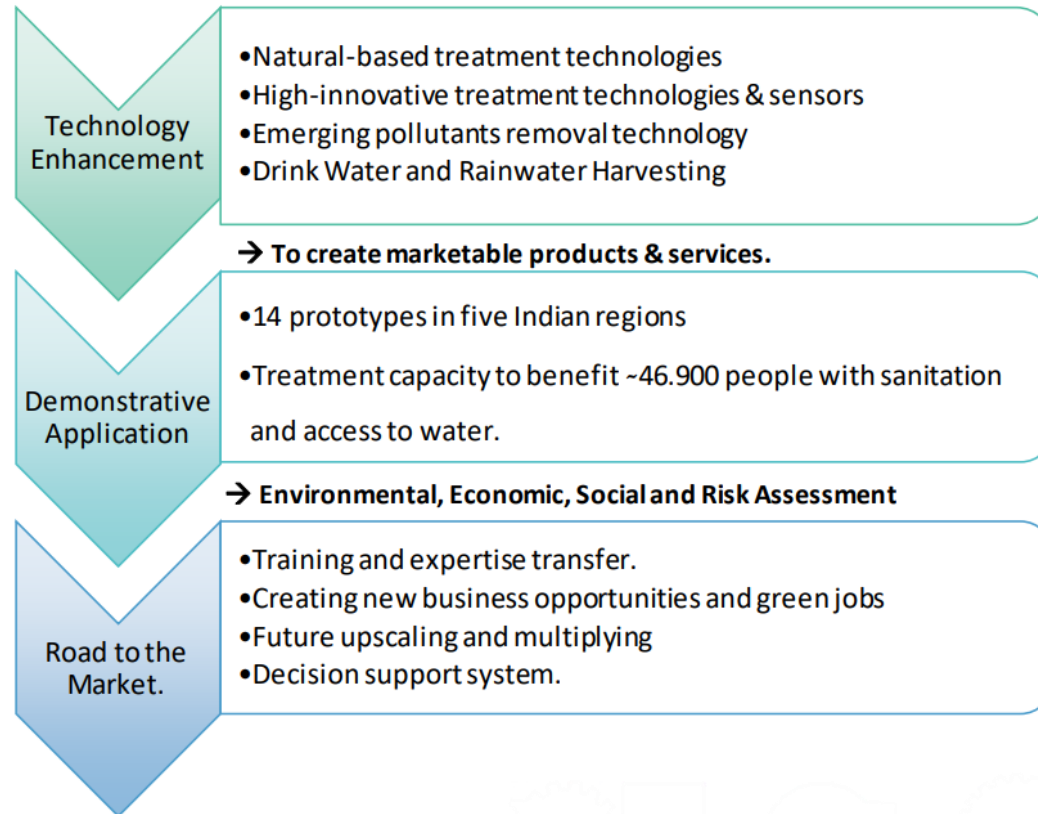


**EU-India Cooperation** for the development and validation of sustainable natural & advance technologies for water & wastewater treatment, monitoring and safe water reuse in India.

- **Horizon 2020**
- **14 Prototypes** developed
- **Duration:** 60 months
- **Total Finance:** 4 Million (2.5 European Commission; 1.5 Indian Government)
- **25 Partners**



# PAVITR Project - Overview



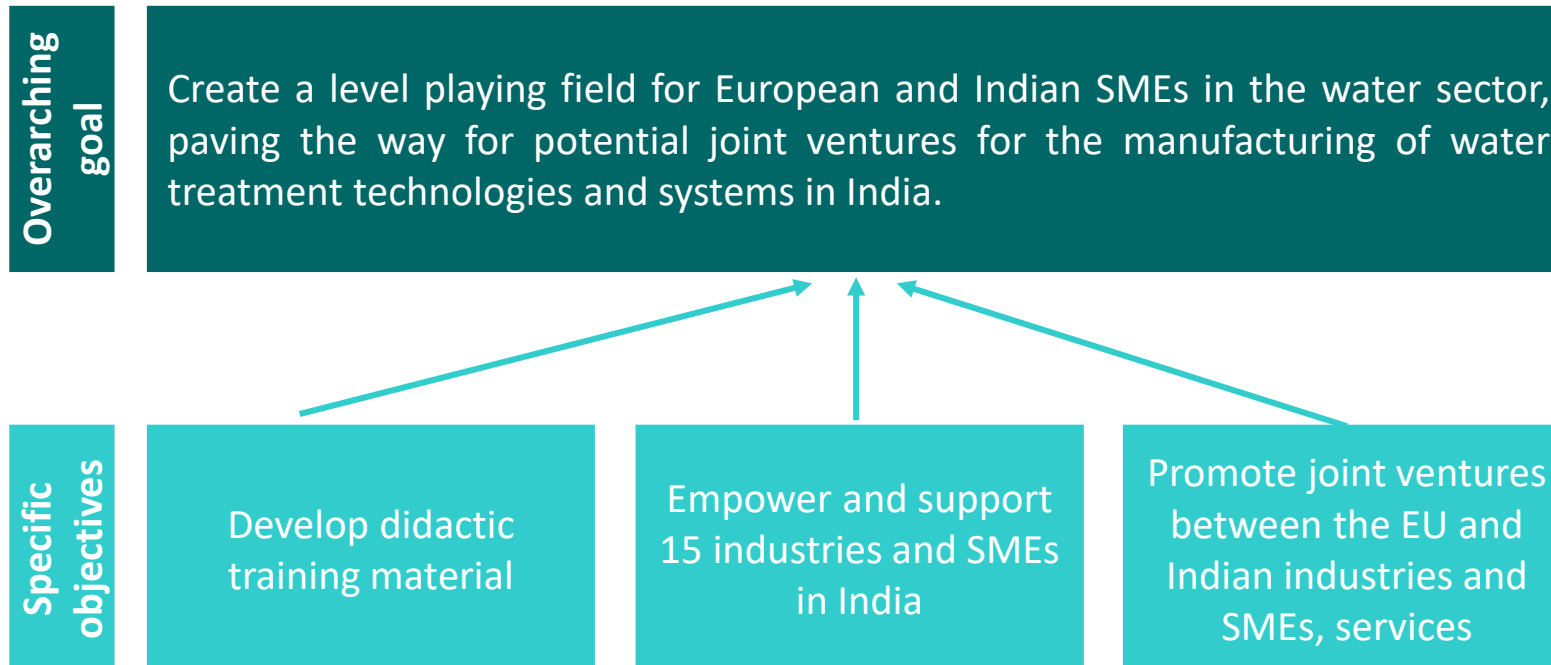
# PAVITR Technologies



S. N.	Pilot Technology	Capacity m <sup>3</sup> /d		Site
		Proposal	Installation	
1	ECI2 (Drinking water technology)	30	300	Pune
2	An Sys + CW (Anaerobic System & Constructed Wetland)	5	50	Pune
3	Rain Water Harvesting	100	100	Dhanbad
4	Optimized SBR (Sequencing Batch Reactor)	25	150	Dhanbad
5	RichWater® SBR (Sequencing Batch Reactor)	25	75	Aligarh
6	HRAP (High Rate Algal Pond)	7	50	Aligarh
7	Short-Rotation Plantation (Willow + Bamboo System + Poplar)	25	300	Aligarh
8	French Reed Bed	50	50	Aligarh
9	Sensors for UASB optimization	25	250	Aligarh
10	Fecal Sludge & Septage Mgt (FSSM) (NBS)	5	5	Aligarh
11	MBBR (Moving Bed Bioreactor)	50	50	Nagpur
12	SAFF (Submerged Aerobic Fixed Film Reactor)	50	50	Nagpur
13	Fecal Sludge - Mechanical Dewatering & Drying System (MDDS)	25	25	Chandrapur
14	MBBR- VFCW – TOXIDATION	-	3	Kharagpur



# Capacity Building Objectives

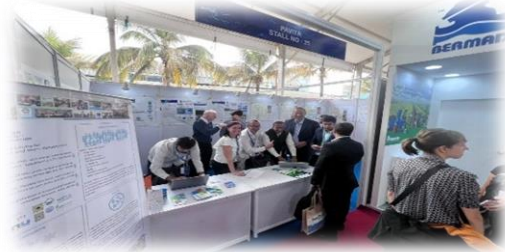


# Capacity Building Strategies



- Strengthening EU-India Networks, fostering joint ventures
- Promoting entrepreneurial capacities, increasing investment readiness (demo-sites as show-cases)
- Visits to potential clients (end-user requirements)
- Raising awareness, pushing policy dialogue & training and workshops (WP7 and WP8)
- Provide market information, case studies, business models (WP9)
- Meetings and agreements with potential partners (Joint venture), suppliers of material and distributing partners
- Local representative agency in India

# Capacity Building Workshops



- Introduction to sustainable water treatment to High school students, Aligarh, Nov. 2021 (175 participants).
- 55<sup>th</sup> IWWA Annual Convention presentations and Booth Pune, Jan 2023.
- International Colloquium of Stakeholder and business Matchmaking Tour, Aligarh, Jan 2023 (54 participants).
- Visit to Prototypes and PAVITR results to local authorities, Aligarh, Jan 2023 (48 participants).

# Training Workshops



- Workshop at the IWA Water and Development Congress & Exhibition- Sri Lanka, Dec. 2020 (48 participants).
- 1st International PAVITR workshop: Joint India-EU projects – Online, Dec.2020.
- Two days e-Workshop on, “Technologies for Wastewater Reuse and Recycling -Advancements and a Way Forward” Online, Sept. 2020
- Workshop at ICEEM conference Switzerland /Hybrid, Sept. 2021 (28 + 56 participants).
- Workshop at the IWA Water and Development Congress & Exhibition- Chennai, India, Jan. 2023 (62 participants)
- Training workshop with Indian companies on market- Aligarh, India, Jan 2023 (49 participants).
- International Training workshops on GIS-based Regional Planning (India, July 2021), Aligarh
- Technology training in India by EU Partners (Nov-Dec, 2021)



# Public Engagement Activities



- ✓ Project Incubator Programme in 2022
- ✓ Demonstration activities for local authorities in Pune, Aligarh, Nagpur & Dhanbad
- ✓ Technical visit and sessions for school students (Aligarh)
- ✓ Agreements with local authorities and end users for sustainability and maintenance after the end of the projects
- ✓ Joint activities for community involvement (Pune)
- ✓ Reports on Indian Media regarding PAVITR Project



# Upcoming Capacity-Building activities



- ✓ 3 days PAVITR Training Workshop in Delhi & Aligarh
- ✓ 5 parallel technical sessions
- ✓ Field visits
- ✓ Sessions on Partnership Model Development and Market Strategy
- ✓ Coaching workshops with 15 Indian industries & SMEs and 5 ventures

TBC: 19 – 23 Nov

	Mon	Tue	Wed	Thu	Fri
Morning	WP7 Activities	Enterprise Diagnostics	Field Visits @ Aligarh	Partnership Model & Market Strategy	
Afternoon	Update DST	Technology Sessions 1 - 5	Field Visits @ Aligarh	Presentation of Results & Roadshow -> Trip back to Delhi, etc	

TBC: DELHI

TBC: ALIGARH

# Added Value- Expected Outcomes for India



- ❖ More than 15,000 people already served (installed prototypes)
- ❖ Advanced technologies adapted to Indian conditions
- ❖ Suitable solutions to address UN development and climate goals
- ❖ Successful prototypes- proven technologies- READY to enter the market
- ❖ Joint ventures projects for addressing water/wastewater challenges
- ❖ Show-cases all over India with real systems & data
- ❖ Base for stakeholder involvement and training
- ❖ Core of trained and informed stakeholders (experts and companies) to roll out project results
- ❖ 5 Research clusters and to expand knowledge in resource recovery in Europe and India
- ❖ The up-scaling potential of technologies to booster circularity



Thank You for your Attention!

