

系 IRCEP CHALLENGES

Field	Details
 Name of Challenge 	Scalability of MARL model over increasing
	number of clusters
2. Partners	I2CAT (Contact Person is Risk Touma at
	rizkallah.touma@i2cat.net)
3. Submission Specifications	Test MARL performance in an increasing number of clusters in a neighbourhood, in order to test if it affects performance and to see how the system scales. The objective is to find the limits of the MARL model in terms of number of clusters, and hence agents, that can communicate together and collaborate without creating a bottleneck for CODECO Actions to be done are the following: - Deploy PDLC-MARL in neighbourhoods
	with increasing cluster numbers - For each architecture measure the following metrics: - performance of the tested use case (greeness, energy consumption) - Test communication latency between agents in the neighbourhood.
4. Platforms to be used	Instructions on which repositories and components to clone will be provided through a repository dedicated to this challenge in this gitlab project. Users are free to use any tool, programming language or visualization they see fit to conduct the experiments and implement the modifications they see needed. All submissions will be done through the same gitlab project. Each group should create a branch in the challenge repository and upload

its submission. This submission must include all code, experimentation, graphics and visualizations executed. A main README file with explanations of how to navigate the submission and of the main analysis results obtained is also mandatory.
A backup of the submission, in Zip, to be included in the application, if possible.