

ITUEvents

ITU  
**AI/ML in 5G**  
Grand Challenge Finale

*Applying machine learning in  
communication networks*

15-17 December 2020  
12:00 - 16:00 Geneva

# Outlook for the 2021 ITU AI/ML in 5G Challenge

*[Wish list 2.0]*

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## Wish #1: Open Data



It is MY  
data.

|      |  |
|------|--|
| Myth | Data from real networks is all private and cannot be opened for the Challenge.                 |
| Fact | Open datasets, including from real networks, are available in ITU AI/ML in 5GChallenge website |
| Wish | However, we need more!   |



### Outline for Challenge 2.0:

1. Enable data sharing via ITU Geneva Sandbox [Refer ITU Standard Y.3172]
2. Work with data providers to pre-process data [Refer ITU Standard Y.3174]
3. Quality data - Work towards simulators + data augmentation [e.g. ITU-ML5G-PS-032]



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## Wish #2:

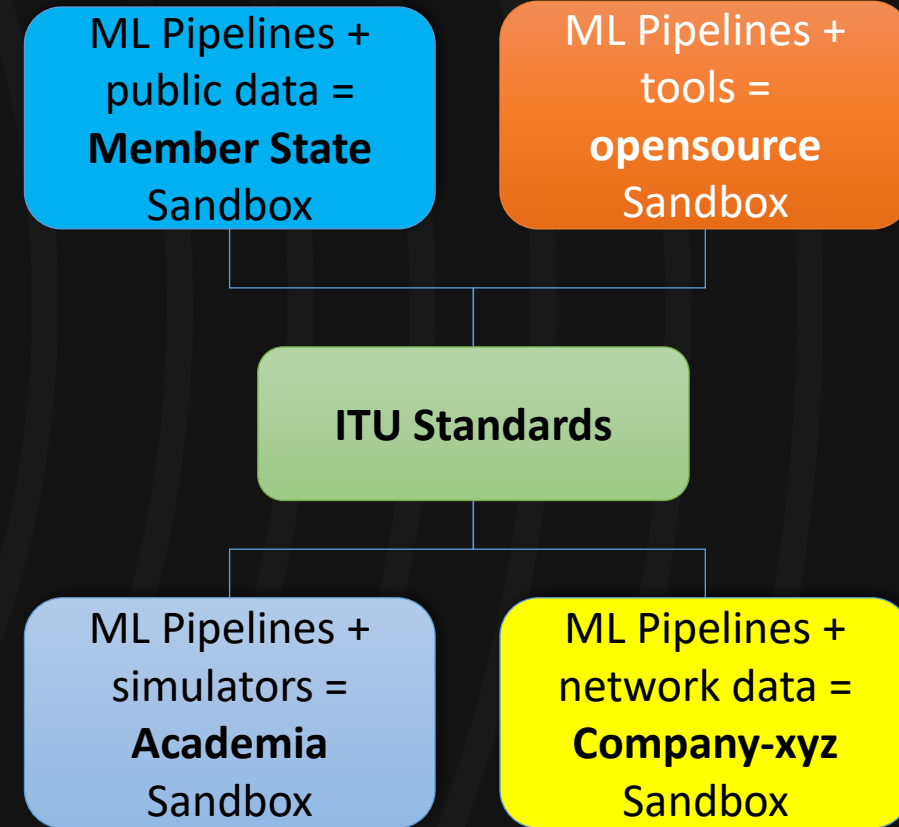
# Equal access to AI/ML tools



|      |   |
|------|---|
| Myth | AI/ML challenges are for data scientists  |
| Fact | A mix of participants (students, professionals, researchers) from 60+ countries |
| Wish | Equal access to GPUs and tools for model training and testing.                  |

### Outline for Challenge 2.0:

1. Open toolkits – as per ITU Standards
2. Reference installations, ready-to-use, toolkits, especially for students
3. Mentoring, round-table sessions, and other participant-engagements



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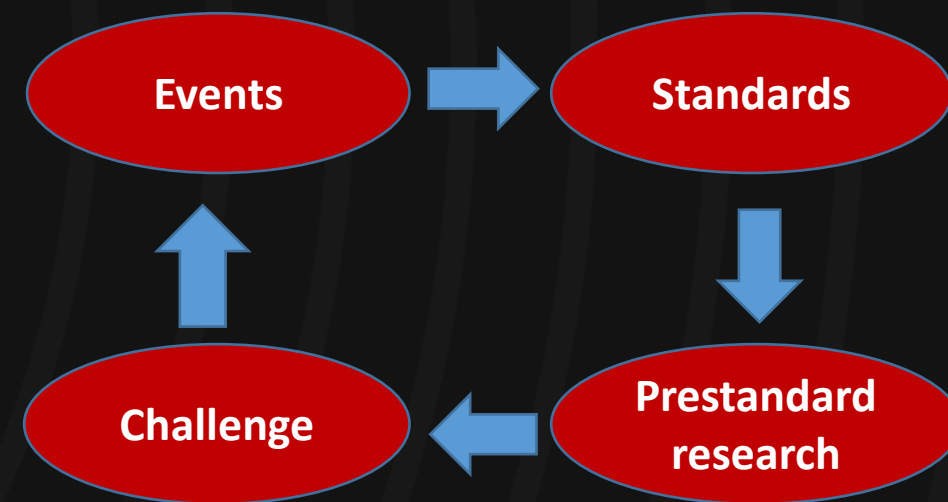
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## Wish #3: Form an eco-system



|      |   |
|------|---|
| Myth | We are here to win \$\$\$ as the prize  |
| Fact | <ul style="list-style-type: none"><li>• 26 webinars by <b>leading researchers</b></li><li>• Round-table discussions with participants and hosts</li><li>• Connecting to ITU standards</li><li>• <b>Open source</b></li><li>• Management team discussions</li><li>• <b>By the way - \$\$\$ too</b></li></ul> |
| Wish | Create a distributed team with <b>mindshare</b> in AI/ML and networks   |

### Outline for Challenge 2.0:

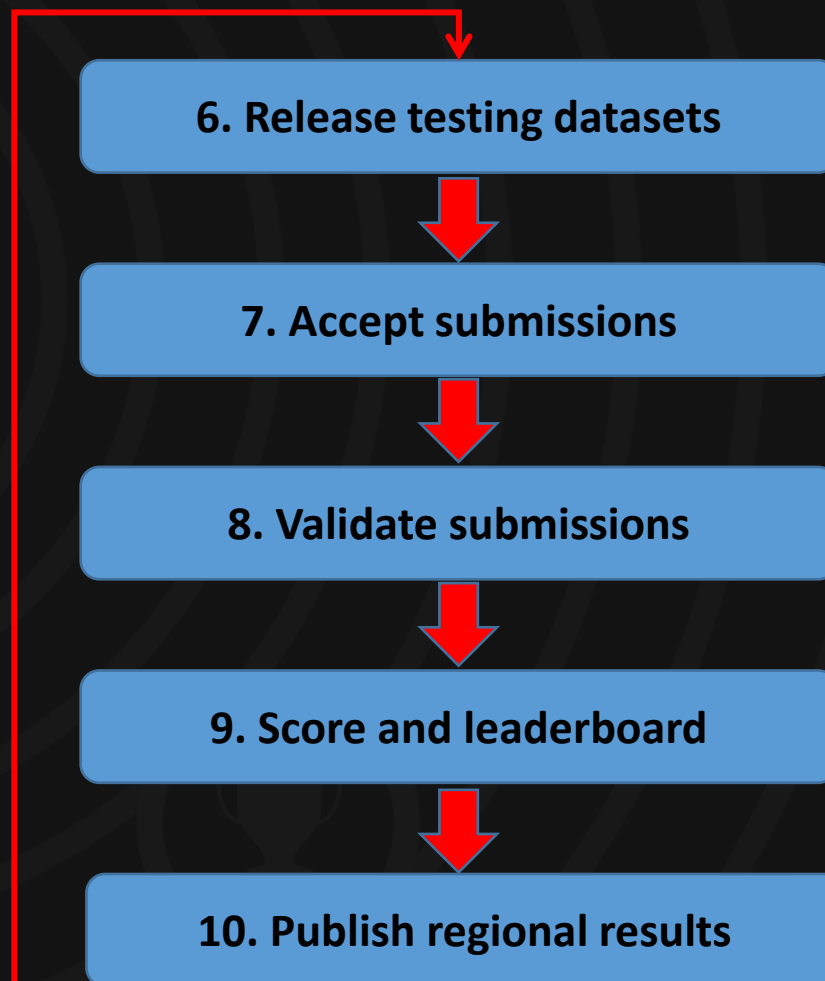


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## Wish #4: More time



### Outline for Challenge 2.0:

- Start the planning stage early,
- Increase Automation and
- Provide enough time for analysis and solution approaches.

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## 1. Bigger:

1. Collaborative problem statements with multiple owners

## 2. Better:

1. Align with pre-standard research
2. Clearly define the scope of the 2 roles: Students vs. professionals.
3. Align the enablers track with **opensource**
4. Focus on generating or augmenting or anonymising data

## 3. Braver:

1. Domain vs. data science: Align themes with upcoming research in domains and in AI/ML.
2. Clearly separate restricted problem statements and their derived value.
3. Reach out in local languages.

# Wish #5: More focus [training phase is over]

### Example themes:

- AI/ML mechanisms (GNN)
- **Autonomous networks-**  
Fault detection, isolation prediction etc.
- AI/ML in **open-RAN**
- Disaster communications
- Campus networks
- <<add your project here>>

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**Talk to us**



**slack**

Define the future of AI/ML in 5G:

[itu-challenge.slack.com](https://itu-challenge.slack.com)

**Launch Challenge  
2.0**



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