EMS Annual Meeting Abstracts
Vol. 18, EMS2021-202, 2021
https://doi.org/10.5194/ems2021-202
EMS Annual Meeting 2021

Case Study: Planning a low-cost X-band radar network from scratch in Austria

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A Start-Up company (Meteosense, a subsidiary of Meteopress, Czech republic, and Idokep, Hungary) in collaboration with a National Meteorological Office in Austria (ZAMG) is preparing and deploying a radar network consisting of affordable X-band weather radars. With a minimum team of three people and based on Lean methodology (Build-Measure-Learn) the plan was set-up with milestones along the way.

The presentation will describe Stage Zero - radar site selection criteria, planning and simulating, Stage One - upgrading existing radar in Vienna to 2.4 meters antenna and Stage Two - planning and deployment of second radar in Austria. Currently, Stage Two is on the way. Stages Three and further will be also briefly described and mistakes and lessons learned will be revealed.

In Stage Zero we will describe how we chose locations for new radars and how we plan the expansion of our radar network in Austria with the help of our radar simulators and experience from building weather radar network in the Czech Republic, Slovakia, Hungary and Croatia.

In Stage One we will describe how we upgraded previously installed radar in Vienna from 1.2-meters antenna to 2.4-meters antenna. We will show the problems that occurred during installation and lessons learned will be revealed. We will also show the results and data from this radar.

In Stage Two we will describe the planning and deployment of our second radar in Austria and this stage will also include how we plan and prepare radar installation in general.

Stages Three and further will include our future plans in Austria.