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The OPENSENSE software ecosystem

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The focus of working group 2 of OPENSENSE is on method and software homogenisation. We have reviewed the existing software available for processing opportunistic rainfall sensor data and did provide example applications executable online in the so called *OPENSENSE software sandbox*. There we have identified synergies but also implementation gaps. Based on this we have set a roadmap for developing individual new software packages to create an ecosystem of packages that work well together.

The foundation of our software ecosystem is the package *poligrain* which provides commonly used functionalities for loading data, plotting maps, comparing sensor data and for doing validation. All this is done with a focus on data provided on a grid, as point data, but also for line geometries. On top of *poligrain*, individual packages for processing data are being built. The existing CML processing package *pycomlink* was adapted to fit into this ecosystem and two new packages were created. The new package *pypwsqc* provides sophisticated methods for quality control of PWS data. The new package *mergeplg* provides different methods for merging point, line and grid data with a focus on merging weather radar and CML data.

In this contribution we will given an overview of this software ecosystem and briefly present the individual packages.

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