Tom Brown, Robbie Morrison, The Open Energy Modelling Initiative Community

Open Power System Data 4th Workshop, DIW Berlin, 10th July 2017
openmod: overview

- **grass roots community** of open energy modellers from universities and research institutions
- participants mainly from Europe, but also from Africa, America, and Australia
- first meeting Berlin 18–19 September 2014 as an off-shoot of strommarkttreffen (some founding members started OPSD)
- promoting **open code, open data and open science**
what is open modelling?

Open refers to model source code that can be studied, changed and improved as well as freely available energy system data. The whole pipeline should be open:

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why open modelling?

openness . . .

• . . . increases transparency, reproducibility and credibility, which lead to better research and policy advice (no more ‘black boxes’)

• . . . can improve research quality

• . . . reduces duplication of effort and frees time to develop new ideas

• . . . allows easier collaboration

• . . . is essential given increasing complexity of the energy system
what open models are there?

Since 2001: zero to $+48$ projects and more coming

Electricity and energy system models:

- second wave ($+3$): 2010 OSeMOSYS, 2012 TEMOA, NEMO
- as of 2017 ($+25$): Calliope, CREST, DESSTinEE, DIETER, Dispa-SET, Einstein, EMLab-Generation, EMMA, Energy Transition Model, EnergyPATHWAYS, ETEM, ficus, GENESYS, NEMO, oemof, OnSSET, pandapower, PowerMatcher, PyPSA, renpass, SIREN, StELMOD, SWITCH, URBS, WWS project
what open models are there?

Transmission and distribution grid models:

- as of 2017 (8): DINGO, GridKit, GridLAB-D, Hutcheon and Bialek dataset, OpenDSS, OpenGridMap, osmTGmod, SciGRID

Energy database projects:

what is the openmod initiative?

The openmod initiative consists of a public mailing list (300+ participants) ...
what is the openmod initiative?

... an internet **forum** for more intense discussions, Q & A and planning ...
what is the openmod initiative?

... a collaborative wiki for collecting information on models and data ...
what is the openmod initiative?

... and finally a workshop every six months for two-three days.

Next Workshop: Technical University of Munich, 11th - 13th October 2017

- tutorials on open software tools and open energy models
- open model and open data presentations
- breakout groups on every possible topic
The following issues are currently being tackled by OpenMOD members:

- good practice in open source projects
- barriers to developing open source projects
- helping data owners understand the consequences of openness
- energy data and metadata standards
- energy model classification and cataloguing
- open/free/libre software and data licensing
- better research computing skills
want to join the openmod initiative?

There is no application process or membership fee. Simply...

- ...join the mailing list
- ...join the online forum
- ...check out the website
- ...come to the next workshop: 11th-13th October 2017, Technical University of Munich
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