# Meteorological Co-operation on Operational NWP

**MetCoOp**

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Meteorologisk institutt
met.no

SMHI

# MetCoOp project

Vision:

Deliver the best
short-term weather forecast
for common areas

Strategy:

Co-operation between
SMHI and met.no

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# Background

- Global models have an increasing quality…
- Running the “same” domain at SMHI & met.no
- Have co-operated in different areas
- Be stronger together
- Beneficial to co-operate on sharing HPC resources

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# High Performance Computing

- Every second year, new HPC
  - The last one continue as backup
- Every second time Norway and Sweden
- *Vilje* in Trondheim 2012-2014
- MetCoOp operational from 2014 on HPC in Sweden

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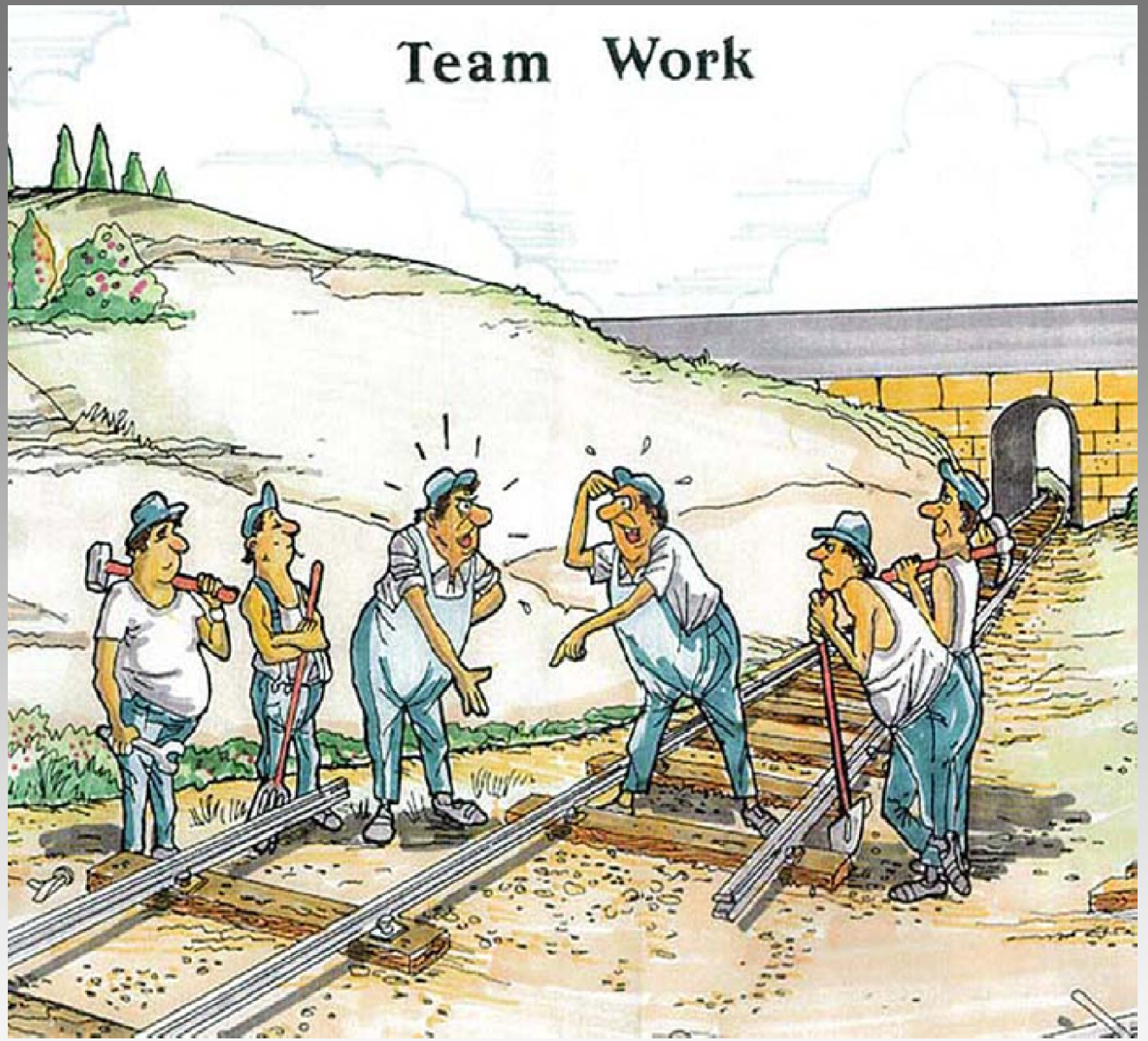


**"None of us is as smart as all of us ."**

**-- Ken Blanchard**

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# Project management

- Use of Scrum, Agile method
- Sprint review after every sprint
- Sprint planning before every sprint
- Twice a week
  - Scrum-meetings on video, Skype
  - Work together in project room

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# Scrum project management

- **Gain progress in small steps**
  - Communication
  - Empowerment
  - Achieving velocity
  - Having a vision

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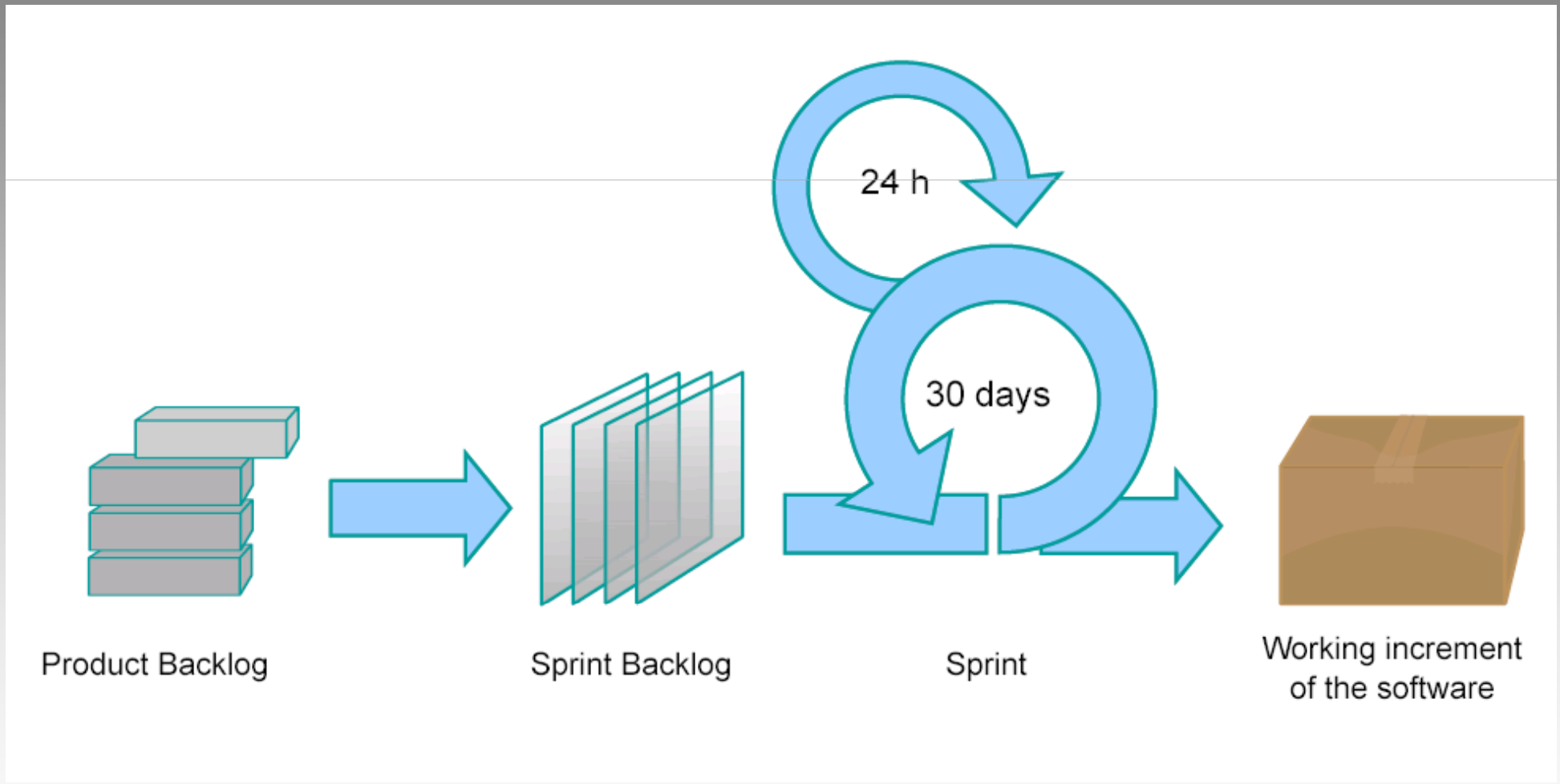
# Scrum: "It's a rugby term used when members of the rugby teams form a circle to get the ball back into play."

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# The Team

- Team is co-located in a team room
- Self-manages and make decisions collaboratively
- Collectively responsible for sprint delivery
- Solve problems and make progress
- Has fun together

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# Agilo manifesto

- **Individuals and interactions over Processes and tools**
- **Working software over Comprehensive documentation**
- **Customer collaboration over Contract negotiation**
- **Responding to change over Following a plan**

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# Project

## Scope:

Prepare for an operational organization on NWP production

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# Milestones

- Decide common model-system 09-11
- Decide comon scheduler system 03-12
- Provide verification result 06-12
  - final decision and paper 10-12
- Decision about EPS system 10-12
- Pre-operational model setup 06-13
- Operational organisation 11-13
- Common operations from 03-14

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# Requirements…

- Optimal selection of **observations**
- Common operational deterministic **model system**
- System for **verification** and **model diagnosis**
- Common ensemble prediction system (**EPS**)
- Communicate with **users** and have system for feedback

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# Requirements…

- **Test-procedures** (meteorological requirements)
- **Routines for change** (IT-technical)
- **Archive** of NWP output
- IT-infrastructure, sufficient **transfer capacity**
- Adapt to new **HPC resources**
- Documentation and publish results in proper **papers**.

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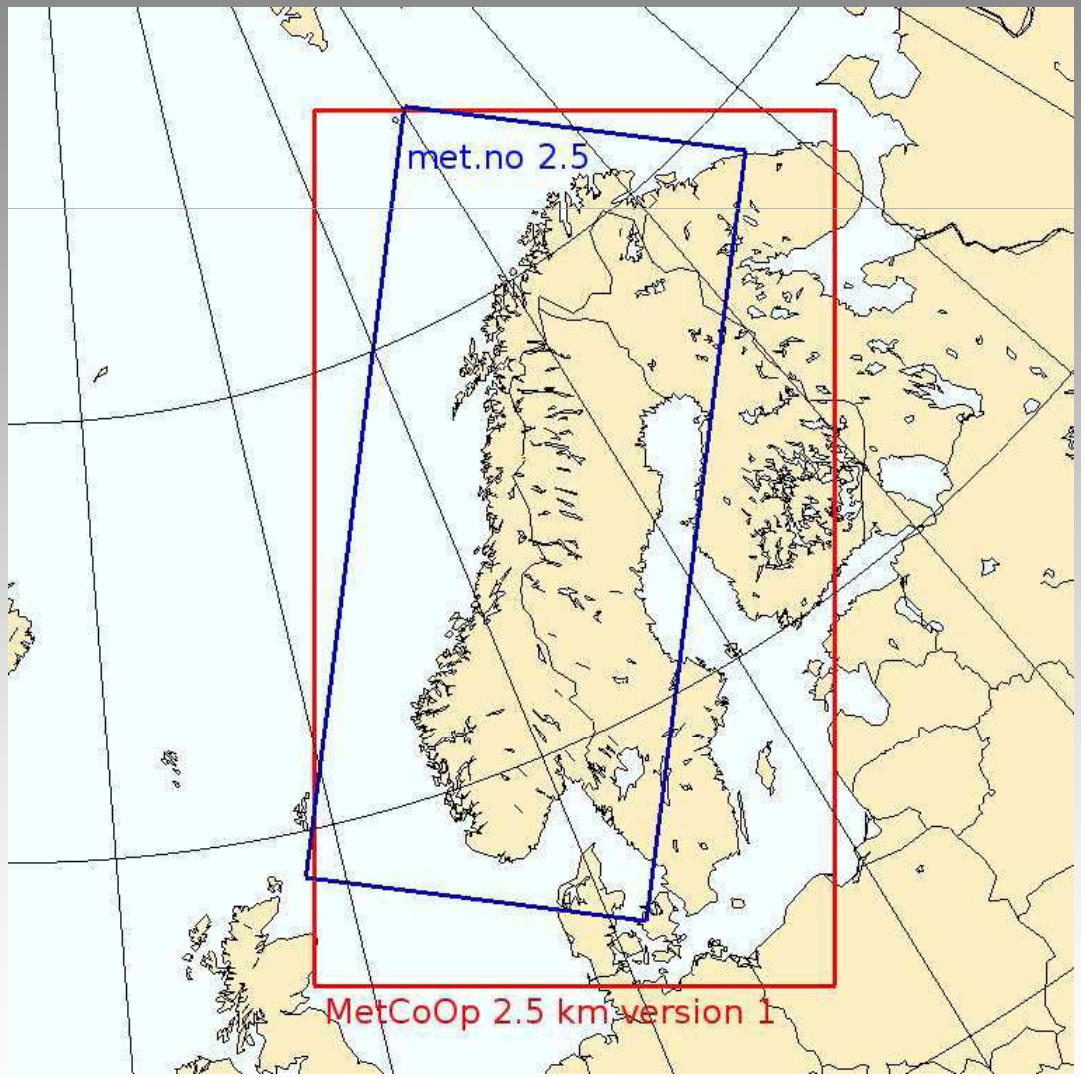
# Status

- HARMONIE 2,5 km with Arome physics
- Merge observations and remove duplicates
- Verification…
- Job-scheduler system…

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Thank you!