ADVANCES IN SHOP TESTING
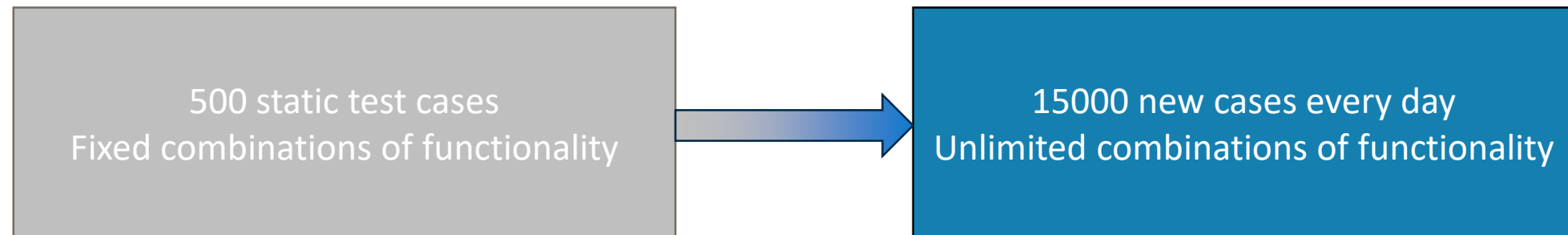
Hans Ivar Skjelbred, SINTEF Energi
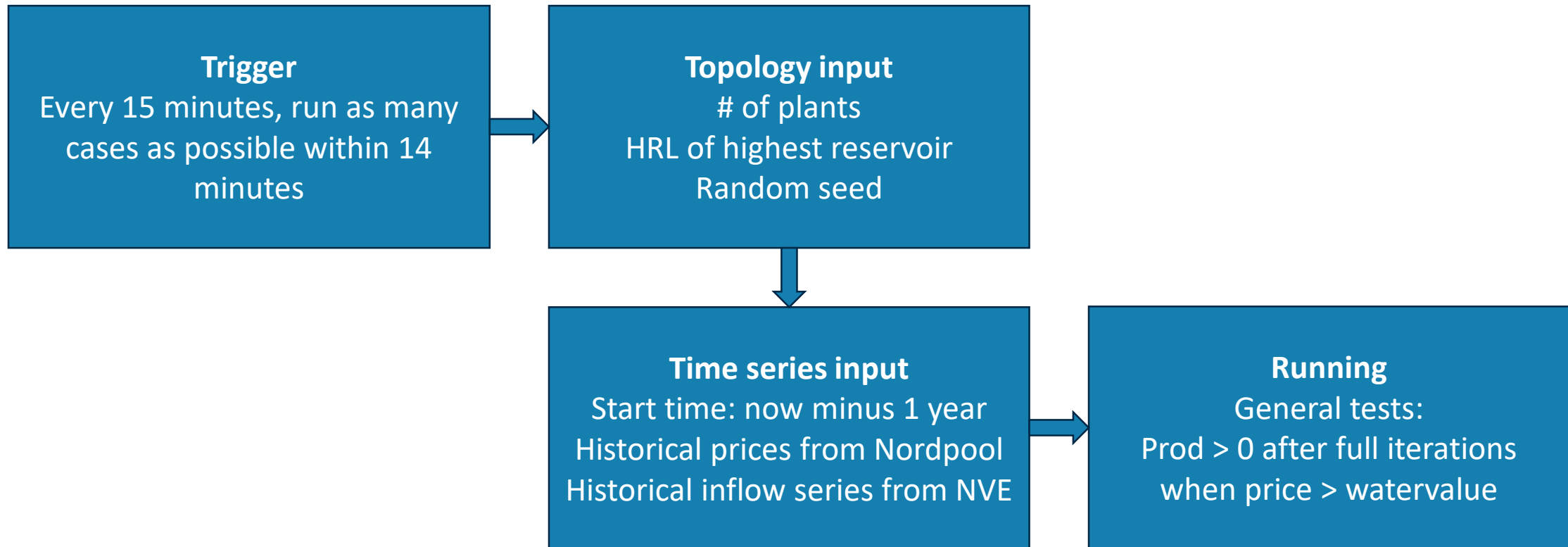
Production planning User forum

Hell, March 12, 2019

Advances in testing in SHOP
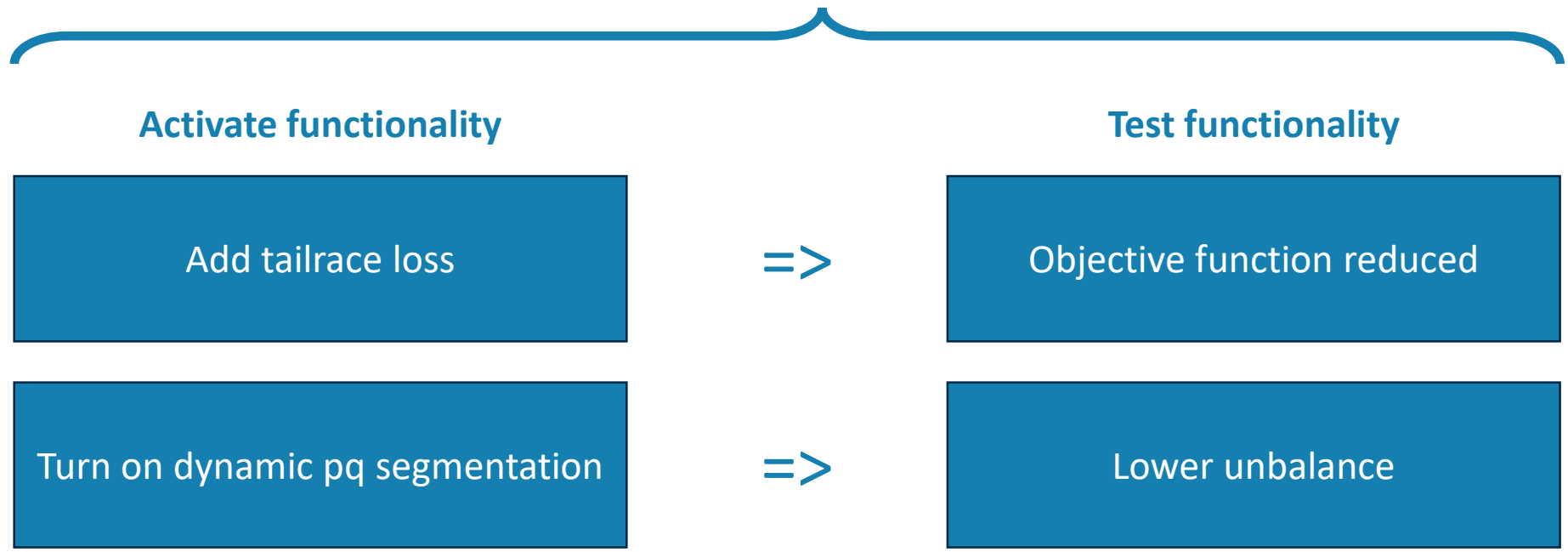
500 static test cases
Fixed combinations of functionality

→

15000 new cases every day
Unlimited combinations of functionality

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Live test system for SHOP (pyTest/pyShop)

Trigger
Every 15 minutes, run as many cases as possible within 14 minutes

Topology input
# of plants
HRL of highest reservoir
Random seed

Time series input
Start time: now minus 1 year
Historical prices from Nordpool
Historical inflow series from NVE

Running
General tests:
Prod > 0 after full iterations when price > watervalue

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Combining functionalities

Pairs of functions

	Activate functionality		Test functionality
A:	Add tailrace loss	=>	Objective function reduced
B:	Turn on dynamic pq segmentation	=>	Lower unbalance

Running order:
1) A+B (reference)
2) A (test B)
3) B (test A)

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~~Test~~ User driven development

Test repository
Common test definitions

Customer server
Operational datasets
Latest available version

SHOP version repository
All released SHOP versions

SINTEF server
Continuous building
Dynamic datasets

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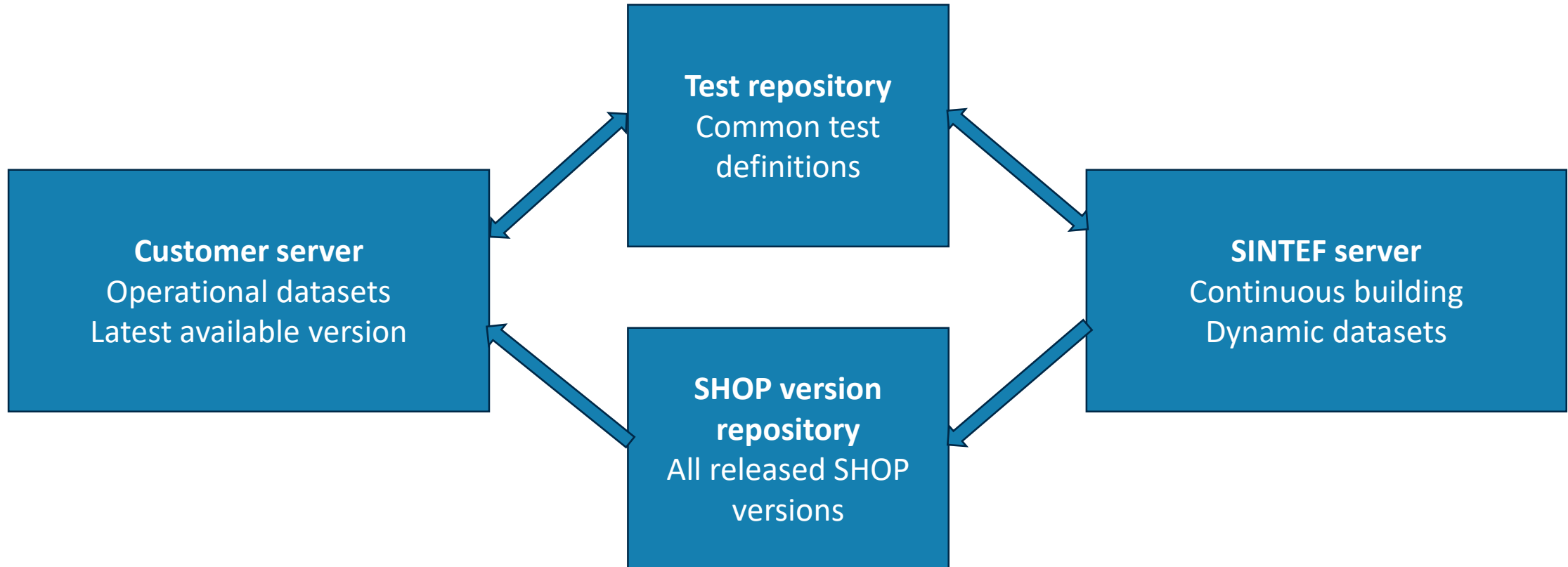
Teknologi for et bedre samfunn