

Enhancing INSPIRE Infrastructures with Data Processing Functionality

INSPIRE Conference 2017

Dr. Christoph Stasch, Benjamin Pross, **Dr. Simon Jirka**

52° North GmbH

- Most INSPIRE compliant web services focus on
 - Data discovery
 - Data access
 - Portrayal functionality
- Currently no common approach for sharing data processing functionality in the Web

Application Pattern 1

52n

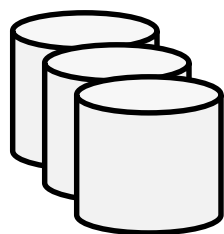
Adding value on top of INSPIRE-compliant download services

- Technical guidance for usage of OGC Sensor Observation Service and Web Coverage Services available → novel data sources
- Combining existing and novel data sources to new information products that add value on top of it

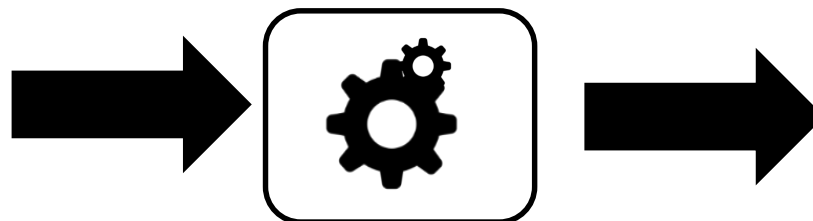
Application Pattern 1

52n

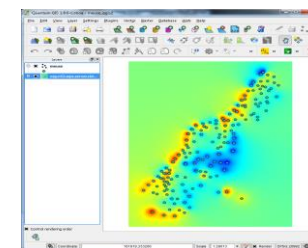
Adding value on top of INSPIRE-compliant download services



INSPIRE-compliant
Download Services



Value-adding
Data Processing

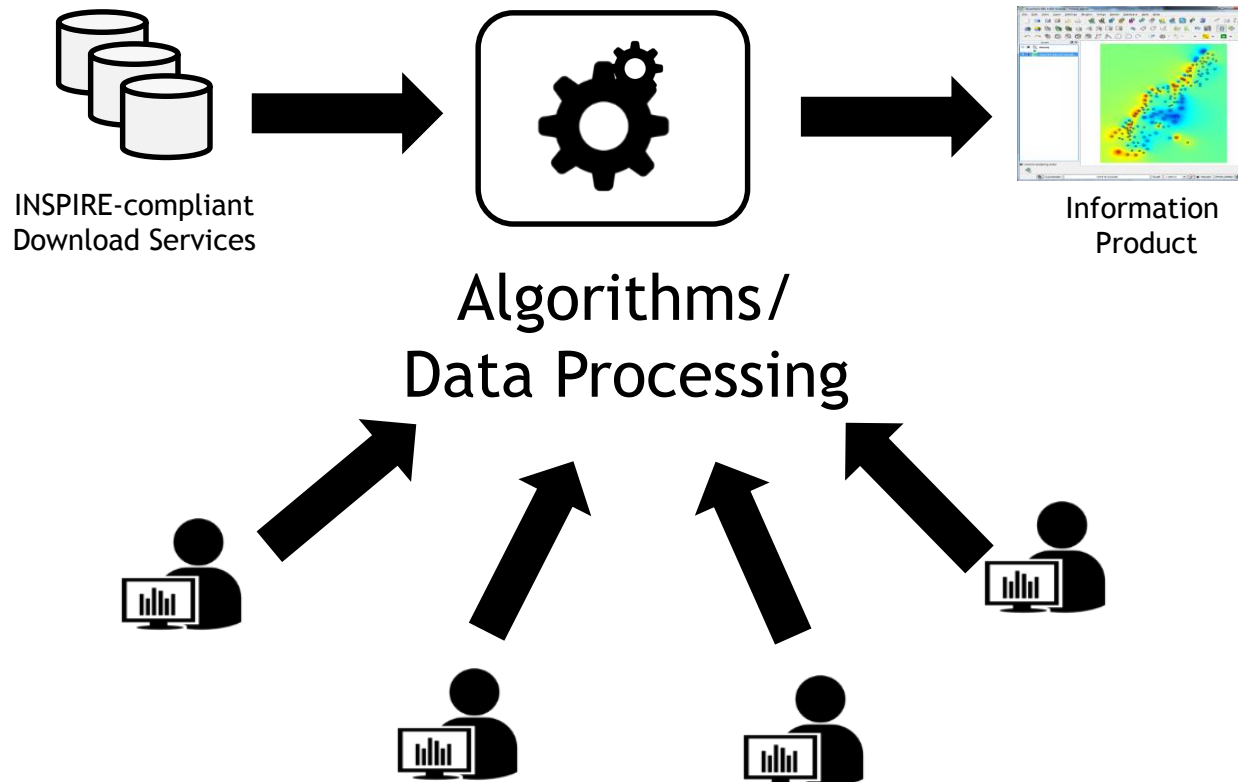


Information
Product

Application Pattern 2

52n

Sharing Algorithms and Data Processing Functionality



OGC Web Processing Service Standard

52n

- Version 2.0 published 2015
- Common process model
- Operations for describing and executing processes
- Access via KVP or POX

Open Geospatial Consortium

Submission Date: 2014-11-25
Approval Date: 2015-01-27
Publication Date: 2015-03-05

External identifier of this OGC® document: <http://www.opengis.net/def/doc-type/standard/1.0>
URL for the Normative OGC® document: <http://docs.opengeospatial.org/is/14-065/14-065.html>
Internal reference number of this OGC® document: 14-065
Version: 2.0
Category: OGC® Implementation Standard
Editor: Matthias Mueller
Co-Editor: Benjamin Pross

OGC WPS 2.0 Interface Standard

Copyright notice
Copyright © 2015 Open Geospatial Consortium
To obtain additional rights of use, visit <http://www.opengeospatial.org/legal/>.

Warning

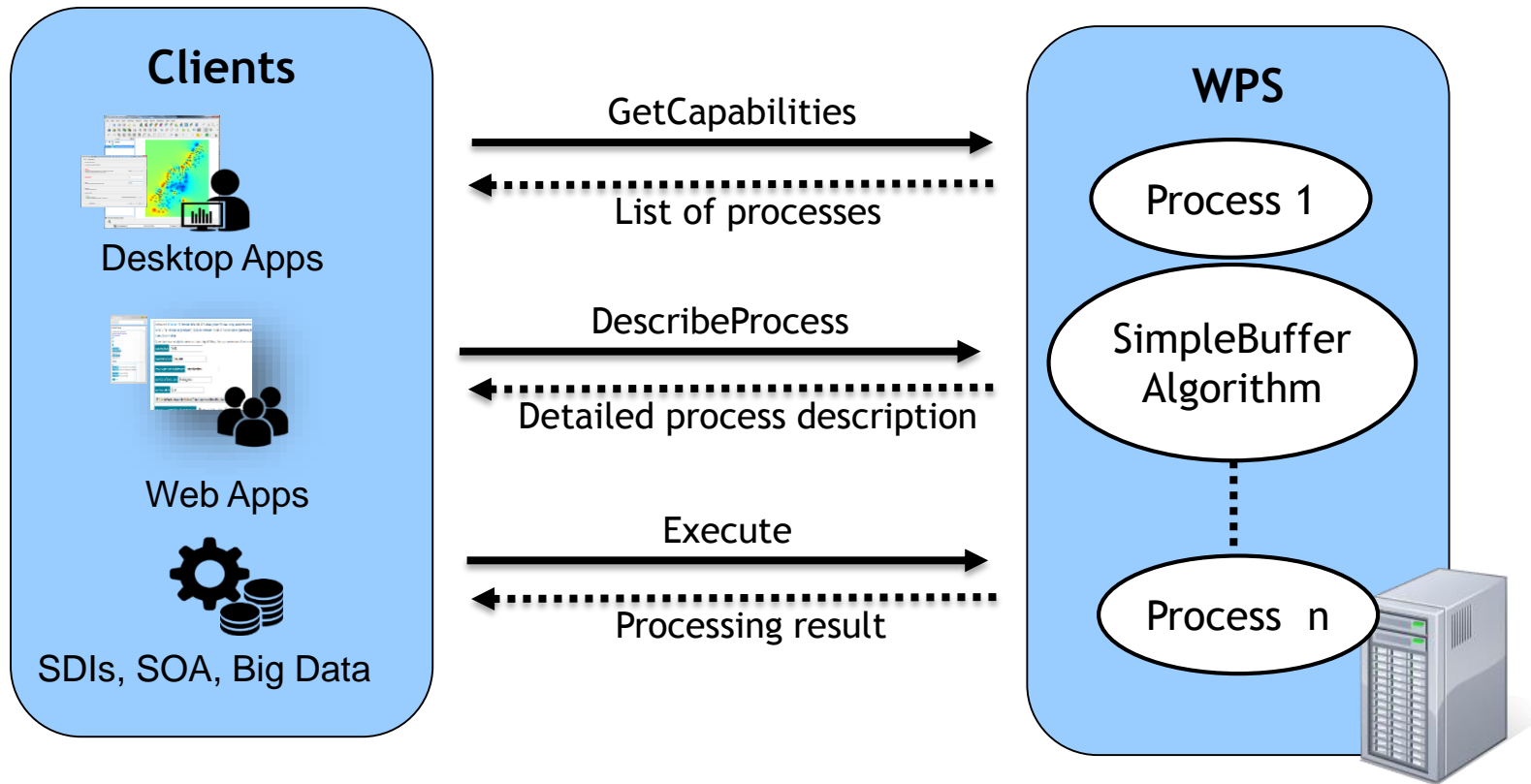
This document is an OGC Member approved international standard, however, this version is informative. The normative version can be found at: <http://docs.opengeospatial.org/is/14-065/14-065.html>. This document is available on a royalty free, non-discriminatory basis. Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Document type: OGC® Standard
Document subtype: Encoding
Document stage: Approved for Public Release
Document language: English

<http://www.opengeospatial.org/standards/wps>

WPS - Steps to execute a process

52n



Proposed Technical Solution

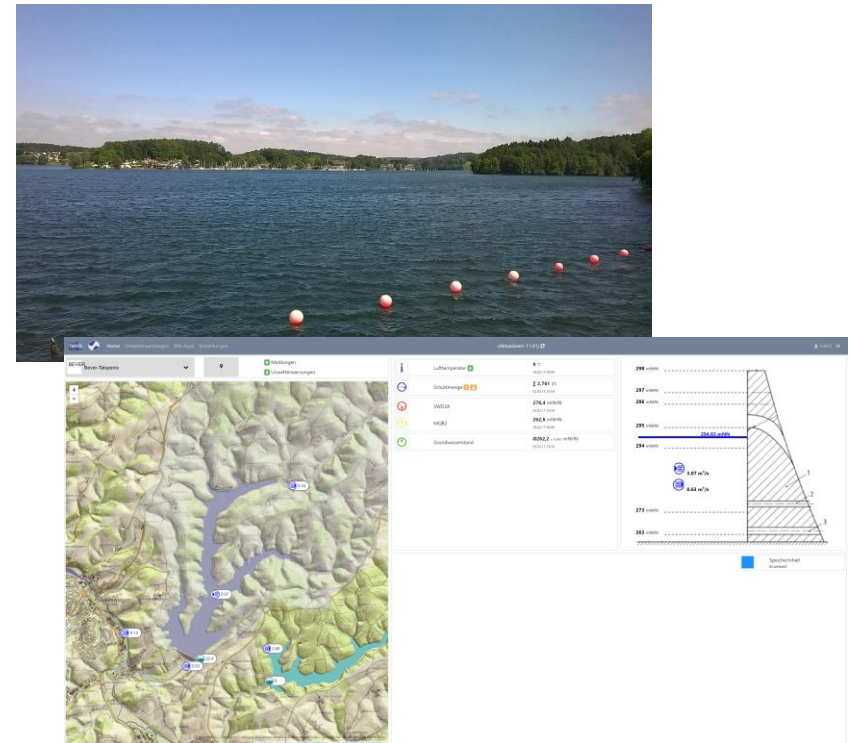
52n



Project Example: TaMIS

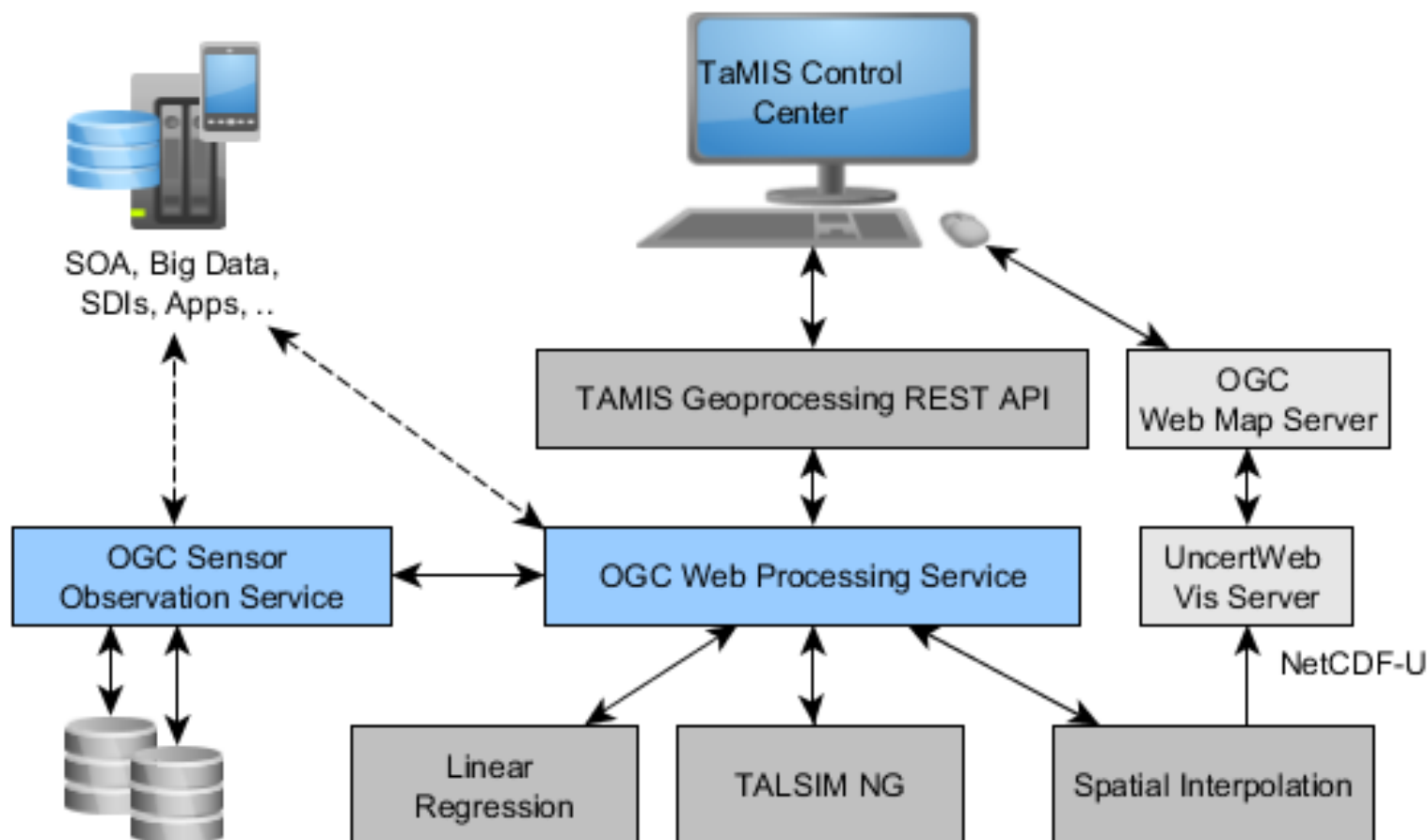


- Development of an integrated water dam control center (Talsperren MessInformationsSystem)
- Integration of various processing facilities
 - Prediction for gaps in time series
 - Spatial interpolation
 - Runoff-water predictions



TaMIS Processing Architecture

52n



- Two common application patterns:
 - Value adding information products
 - Sharing algorithms/data processing functionality
- Currently no common way for adding/providing processing functionality in INSPIRE-compliant infrastructures
- Standard available: OGC Web Processing Service
→ Technical guidance for processing services?

Thank you for your attention!

52n

More information:

<http://52north.org>



Christoph Stasch

c.stasch@52north.org



Benjamin Proß

b.pross@52north.org



Simon Jirka

jirka@52north.org



Parts of this work have been funded by the German Ministry of Research and Education under Grant 03G0854D.

