



# **SDI.Next Closing Plenary**

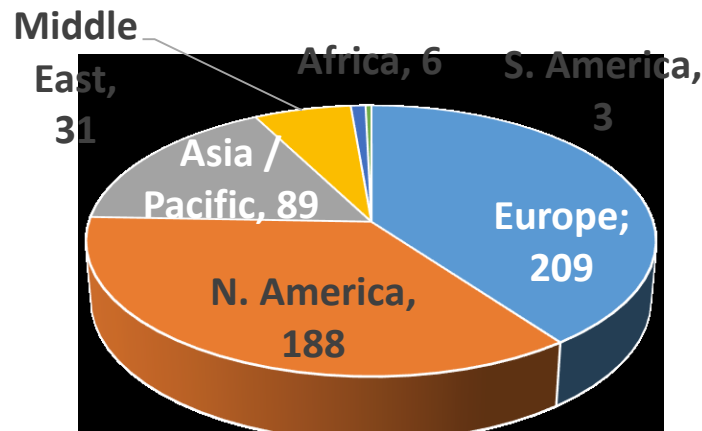
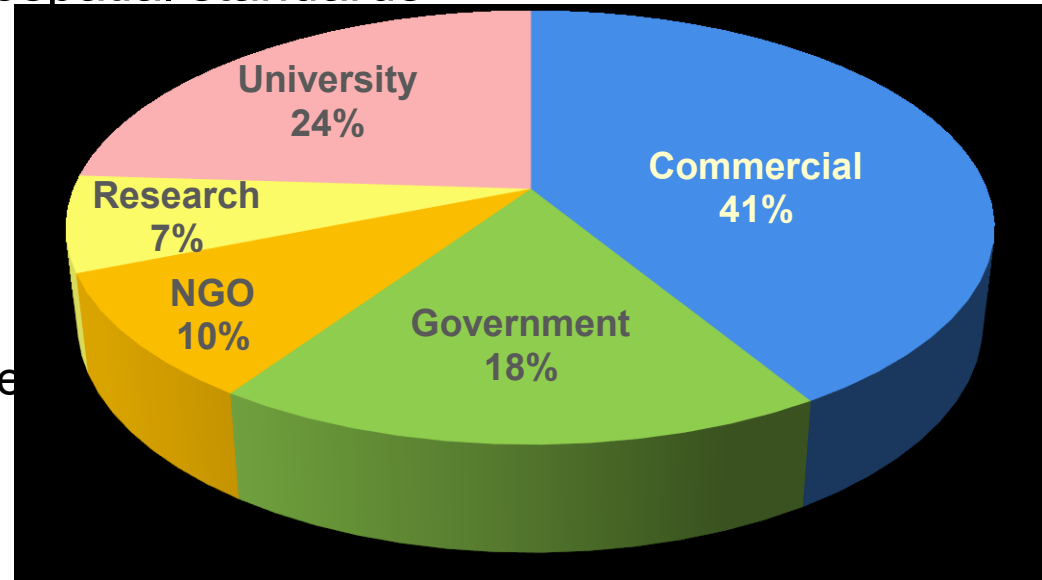
Bart de Lathouwer  
OGC  
31 October 2018, Amersfoort

# The Open Geospatial Consortium



Not-for-profit, international voluntary consensus standards organization; leading development of geospatial standards

- Founded in 1994 with 8 charter members
- 520+ members
- Over 50 standards and related best practices
- Thousands of product implementations
- Broad user community implementation worldwide
- Alliances and collaborative activities with many other organizations



# Ms. Globe meets Mr. Cube – Geo meets Web



# W3C – OGC meeting in London



# OGC – W3C Spatial Data on the Web BP



W3C Working Group Note

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## Spatial Data on the Web Best Practices

W3C Working Group Note 28 September 2017



### This version:

<https://www.w3.org/TR/2017/NOTE-sdw-bp-20170928/>

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# W3C - OGC invloed (invloed van Hoodies)



- WFS3

The screenshot shows the GitHub repository page for 'opengeospatial / WFS\_FES'. The repository has 47 watchers, 65 stars, and 17 forks. It contains 300 commits, 10 branches, 1 release, and 14 contributors. The latest commit is by 'cportele' and is titled 'changes file references to support OGC publication pipeline', made 19 days ago. The repository structure includes folders for 'core', 'docs', 'extensions', 'guide', and 'placeholder-additional-conformance...', as well as files like '.gitignore', 'LICENSE', 'Parts.md', 'README.md', 'annex\_ats.adoc', 'background.md', 'implementations.md', 'openapi-buildings.yaml', 'openapi.yaml', 'overview.md', and 'swagger.yaml'.

File/Folder	Description	Last Commit
core	changes file references to support OGC publication pipeline	19 days ago
docs	update document	7 months ago
extensions	Update clause_06_crs.adoc	2 months ago
guide	Merge pull request #68 from opengeospatial/User-Guide	2 months ago
placeholder-additional-conformance...	The minItems and maxItems are for validating arrays (not items)	8 months ago
.gitignore	Update .gitignore	11 months ago
LICENSE	add license	a year ago
Parts.md	Updates for v0.2	a year ago
README.md	Update status	a month ago
annex_ats.adoc	August 7 Update	3 months ago
background.md	Add more information to the readme	a year ago
implementations.md	Update example links to draft.1 URI scheme	3 months ago
openapi-buildings.yaml	Clean-up asciidoc	7 months ago
openapi.yaml	Clean-up asciidoc	7 months ago
overview.md	Add more information to the readme	a year ago
swagger.yaml	change `count` to `limit`	8 months ago

{ REST }

# Developer invloed (invloed van Hoodies)



- RESTful
- OpenAPI

The screenshot displays the SwaggerHub interface for a sample API. The central pane shows the OpenAPI 3.0.1 definition in a dark-themed editor. The definition includes an info object with title, version (M1), and description, as well as contact information for Acme Corporation. It also lists servers for development and production, and a landing page operation. The left sidebar shows the API's capabilities and features, while the right sidebar provides a summary and a list of endpoints.

```
1 openapi: 3.0.1
2 info:
3   title: A sample API conforming to the OGC Web Feature
4     Service standard
5   version: M1
6   description: >-
7     This is a sample OpenAPI definition that conforms to the
8     OGC Web Feature
9     Service specification (conformance classes: "Core",
10    "GeoJSON", "HTML" and
11    "OpenAPI 3.0").
12  contact:
13    name: Acme Corporation
14    email: info@example.org
15    url: 'http://example.org/'
16  license:
17    name: CC-BY 4.0 license
18    url: 'https://creativecommons.org/licenses/by/4.0/'
19  servers:
20    - url: 'https://dev.example.org/'
21      description: Development server
22    - url: 'https://data.example.org/'
23      description: Production server
24  paths:
25    '/':
26      get:
27        summary: landing page of this API
28        description: >-
29          The landing page provides links to the API definition,
30          the Conformance
31          statements and the metadata about the feature data in
32          this dataset.
33        operationId: getLandingPage
34        tags:
35          - Capabilities
36        responses:
37          '200':
38            description: links to the API capabilities
39            content:
40              application/json:
41                schema:
42                  $ref: '#/components/schemas/root'
43              text/html:
44                schema:
45                  type: string
```



**SWAGGER**

**SMARTBEAR**



# Developer invloed (invloed van Hoodies)



- RESTful
- OpenAPI
- Github
- Slack
- Developer focus
- Interactiever
- Meer participatie
- Implementatie in //
- ...

The screenshot shows the GitHub repository page for `opengeospatial/WFS_FES`. The repository has 47 watches, 65 stars, and 17 forks. There are 73 issues, 8 pull requests, 0 projects, 0 wiki pages, and 0 insights. A notification banner asks if the user wants to submit an issue. Below the banner, there are filters for 'is:issue is:open', labels, and milestones. A 'New issue' button is visible. The issues list shows 73 open issues and 54 closed issues. The issues are sorted by author, labels, projects, milestones, assignee, and sort. The issues list includes:

- Wrong edge order in BBOX description (bug)
- Migrate from rawgit to GitHub issues
- Change collection name to collection id
- Dynamically fetching features from more than one collection at a time (enhancement)
- ATS Cleanup
- extents not easily extensible as the connections to the reference systems are not clear
- JSON-LD
- Paging testability and reaching last page
- Protect clients against large datasets/high limit values
- items vs. a type name - From presentations at TC

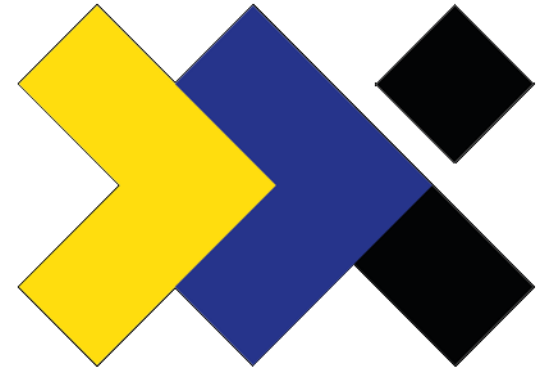


# SDI.Next in OGC

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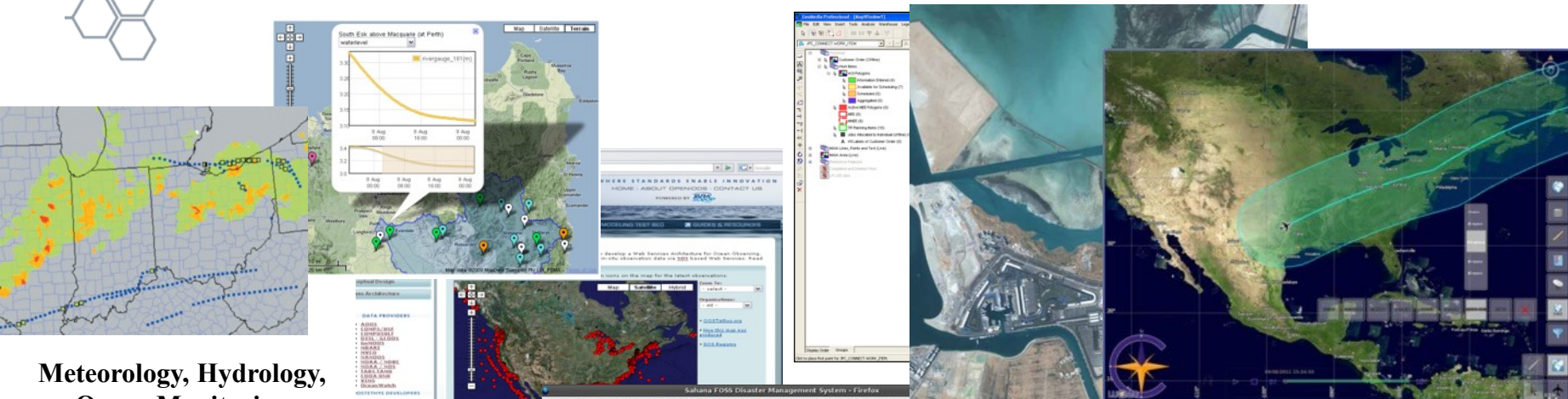


- Geosemantics Interest group
- WFS3
- Blockchain
- Metadata and catalog
  - DCAT/ISO – CSW/CKAN
- OGC Testbed 13 en 14
  - Dank aan Geonovum om te sponsoren! (WFS3) Visie!
- Sensor Things API
- GeoPackage
  
- Aangemoedigd door de OGC “Board of Directors”

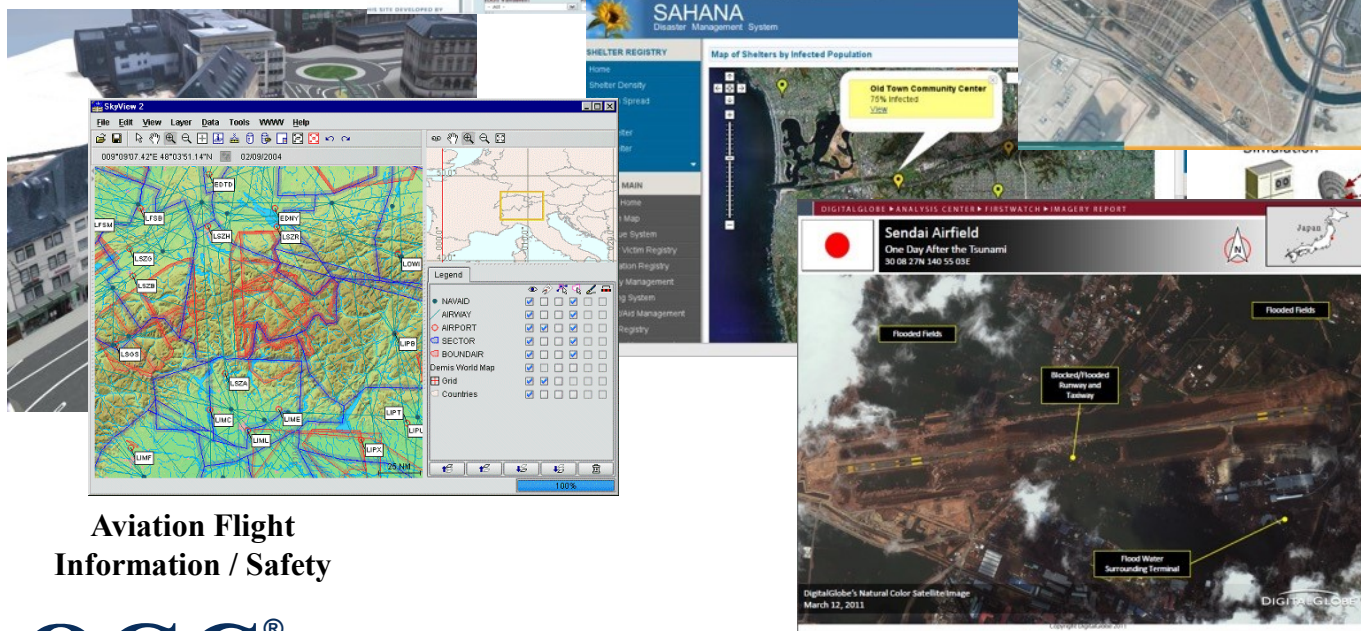


# SDI.Current

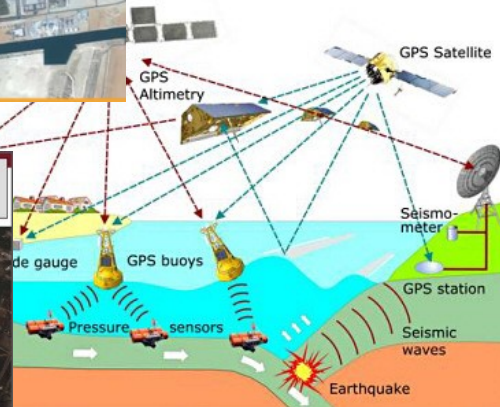
# Geospatial Information Inform and Enhance Decision Making in an Interoperable Environment



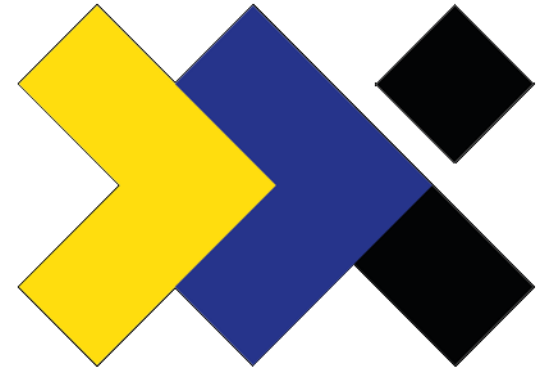
**Meteorology, Hydrology, Ocean Monitoring**



**Aviation Flight Information / Safety**



**Emergency / Disaster Management**



# SDI.Next.Next

# SDI.Next.Next



<https://github.com/opengeospatial/OGC-Technology-Trends>

opengeospatial / OGC-Technology-Trends

Watch 16 Star 15 Fork 6

Code Issues 83 Pull requests 1 Projects 1 Wiki Insights

No description, website, or topics provided.

163 commits 3 branches 0 releases 4 contributors Apache-2.0

Branch: master New pull request Create new file Upload files Find file Clone or download

percival Merge pull request #98 from opengeospatial/jabhay-ld-001 Latest commit bdfebb8 29 days ago

DataScienceAnalyticsRoadmap	Link updates	2 months ago
Roadmapping	Trend updates 201807	2 months ago
Trends	Merge branch 'master' into jabhay-ld-001	29 days ago
images	Broken link fixed	2 months ago
roadmapping general references	Roadmapping legend created	a year ago
.gitignore	Updated the tables to be consistent with the new mindmap	6 months ago
LICENSE	Initial commit	2 years ago
README.md	Broken link	2 months ago
chapter-01.adoc	Link cleanup	2 months ago
chapter-02.adoc	Ripe Trends Characterization	2 months ago
chapter-03.adoc	Mindmap and Trends sync	2 months ago
chapter-04.adoc	Mindmap and Trends sync	2 months ago
chapter-05.adoc	All Trends in one directory	2 months ago
chapter-06.adoc	Mindmap and Trends sync	2 months ago
chapter-07.adoc	Mindmap and Trends sync	2 months ago
chapter-08.adoc	Add 5G Trend	2 months ago
trends.adoc	Tables as chapters	2 years ago



# SDI.Next.Next



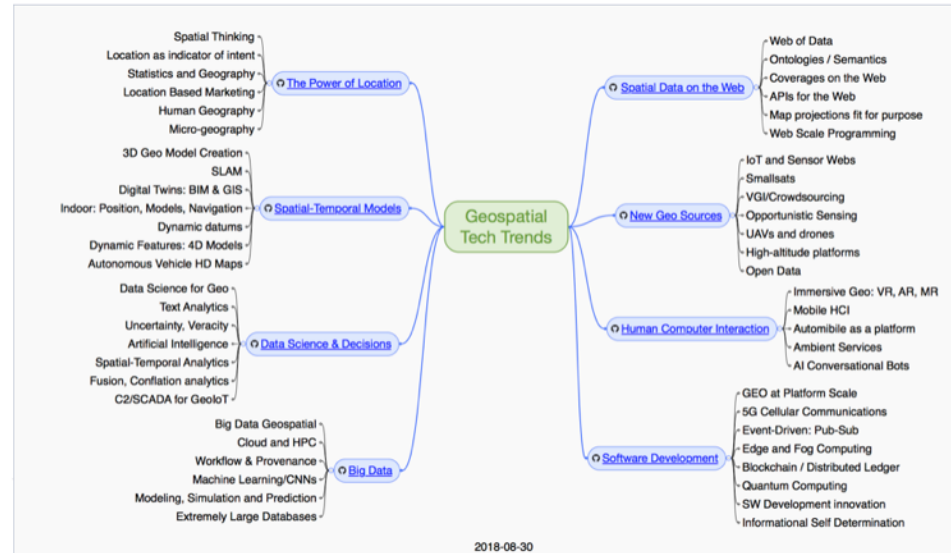
<https://github.com/opengeospatial/OGC-Technology-Trends>

README.md

## OGC-Technology-Trends

Geospatial technology trends as tracked by the Open Geospatial Consortium (OGC) and the OGC Architecture Board (OAB) are listed on this and linked pages. A summary of all tracked Trends is provided in the mindmap. A set of Ripe Trends have been identified as summarized in the Trend Assessment. Also available is an overview of the [Technology Trends process](#).

Each Trend is linked to a GitHub issue - *Comments are welcome and encouraged on the issue linked to the trend*



### Trends grouped into meta-trends:

- [The Power of Location](#)



# Technology Trends



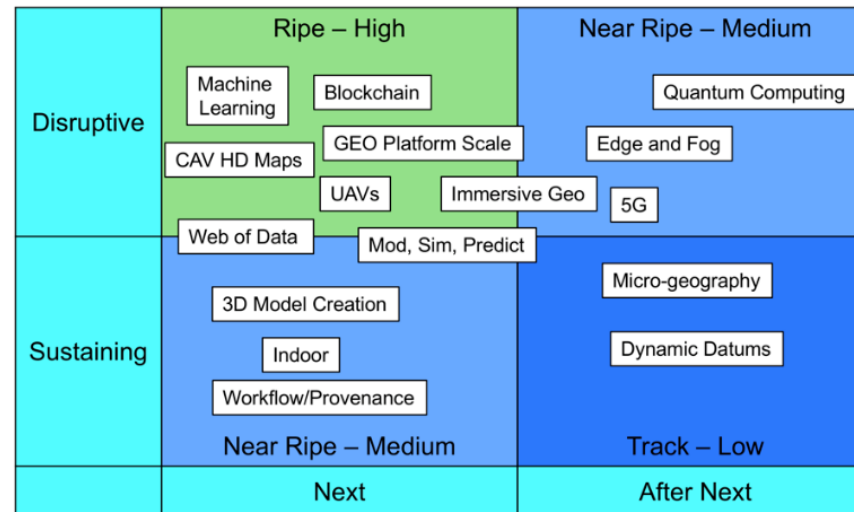
## Highest Priority

- Autonomous Vehicle HD Maps
- Blockchain/Distributed Ledger
- GEO at Platform Scale
- Machine Learning/CNNs
- Modeling, Simulation and Prediction
- UAVs and Drones
- Web of Data

## Second Priority

- 3D model creation
- 5G Cellular Communications
- Edge and Fog Computing
- Immersive Geo: AR, VR, Mixed Reality
- Indoor: Position, Models and Navigation
- Quantum Computing
- Workflow/Provenance

Ripe Trends are identified based on characterizations of trend impact (Disruptive or Sustaining) and Horizon (Next or After Next). The trends for highest priority consideration are Trends assessed as Disruptive and Next.



2018-09-03

# Concluding

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- SDI.Next
- SDI.Current
- SDI.Next.Next
  
- Wat hebben ze allemaal gemeen?
  - We willen geen silo's (Common Ground!) – we willen makkelijk gegevens kunnen delen (nood aan afspraken – *standaarden*)
  - Standaarden worden gemaakt door mensen. Mensen met een visie!
  - Standaarden maken zichzelf niet, maar worden gemaakt door mensen zoals u!
    - Doe mee!!

# Concluding

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- SDI.Next
- SDI.Current
- SDI.Next.Next
  
- Wat hebben ze allemaal gemeen?
  - Geen silo's (Common Ground!)
  - Standaarden worden gemaakt door mensen. Mensen met een visie!
  - Standaarden maken zichzelf niet, maar worden gemaakt door mensen zoals u!
  
- **Doe mee!!**



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**DANK U!**