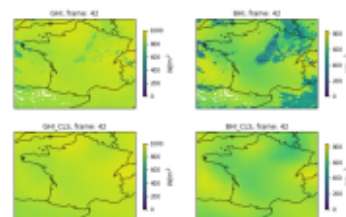




**NextGEOSS Pilot - Constructing Gridded Data for Grid Operations**



[Metadata](#) | [Metadata \(XML\)](#)

Title	NextGEOSS Pilot - Constructing Gridded Data for Grid Operations
Date	2018-10-15T12:00:00
Date type	Creation
Abstract	<p>Satellite images are routinely processed to yield information on clouds properties. The Copernicus Atmosphere Monitoring Service (CAMS) offer access to properties of the cloudless atmosphere every 3h. These sets of information are combined together with site-specific properties, e.g. elevation and shadowing by local relief, to produce estimates of the solar radiation at a given site. Thus, the computation is made on an ad hoc basis on-the-fly. To better account for changes in solar position and possible shadowing effects, computations of the solar radiation are made every 1 min and the results are then aggregated e.g. every 15 min or 1 h, chosen by the user. The operations that are currently working satisfactorily though improvements should be brought to ease access to data by users. A new use case has arisen recently due to the large penetration of PV plants in Europe. Grid operators need a better knowledge of the very local production of electricity by PV plants that are connected to the grid in order to ensure the stability and quality of the electricity delivered to customers. Accordingly, their requests are for time-series of solar radiation over a regular grid of points covering their area of interest which may be nation-wide. Though the time-series may be short, e.g. two days of estimates every 15 min, the number of grid nodes may be high. An area of say 1000 km x 1000 km with a grid cell of 10 km in size means running the model for 10 000 nodes at the same time. The concept of cloud computing supporting the NexGEOSS infrastructure solves this issue in both computational aspects and dissemination aspects.</p>
Service Type	OGC:WPS
Service Version	1.1.1
Coupling Type	Tight
Hierarchy level	Service

**OnLine resource**

Linkage	<a href="http://www.webservice-energy.org/nextgeoss">http://www.webservice-energy.org/nextgeoss</a>
Protocol	WWW:LINK-1.0-http--link
Linkage	<a href="https://notebooks.terradue.com">https://notebooks.terradue.com</a>
Protocol	WWW:LINK-1.0-http--partners

Linkage	<a href="https://github.com/ec-nextgeoss/armines-cams-gridded-data/">https://github.com/ec-nextgeoss/armines-cams-gridded-data/</a>
Protocol	WWW:LINK-1.0-http--partners
Linkage	<a href="https://github.com/ec-nextgeoss/armines-cams-gridded-data/blob/master/NextGEOSS-ARMINES-Pilot-1-Access-Instructions.pdf">https://github.com/ec-nextgeoss/armines-cams-gridded-data/blob/master/NextGEOSS-ARMINES-Pilot-1-Access-Instructions.pdf</a>
Protocol	WWW:LINK-1.0-http--partners
Linkage	<a href="http://www.webservice-energy.org/sites/www.webservice-energy.org/files/result.nc">http://www.webservice-energy.org/sites/www.webservice-energy.org/files/result.nc</a>
Protocol	WWW:LINK-1.0-http--partners
Linkage	<a href="http://www.webservice-energy.org/sites/www.webservice-energy.org/files/video_result_sample.webm">http://www.webservice-energy.org/sites/www.webservice-energy.org/files/video_result_sample.webm</a>
Protocol	WWW:LINK-1.0-http--partners

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## Keyword

Keyword	Solar radiation
Keyword	GHI
Keyword	DHI
Keyword	BHI
Keyword	Copernicus Atmosphere Monitoring Service
Keyword	CAMS
Keyword	Gridded data
Keyword	Time series
Keyword	NextGEOSS
Keyword	MINES ParisTech
Keyword	ARMINES
Keyword	GEOSS
Keyword	WPS
Keyword	OGC
Type	Theme

## Extent

### Geographic bounding box

West bound	-66
East bound	66
South bound	-66
North bound	66

File identifier	e97fbcf2-2655-43e9-833c-2ca262528abf
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