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DLR

Session services – S3 Irradiance forecasts

3 July 2012

ENDORSE



Overview

- Irradiance forecasts for electricity production
 - Focus on concentrating solar power plants
 - Enhance existing irradiance forecast services from meteorological service providers
 - Support development of electricity production forecast service



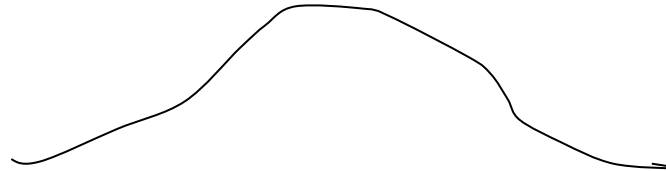
Source: DLR, Solar Millennium AG

Services

- Commercial service developed at Flagsol
 - With help of ESA Int. Applic. Programme, CSP-FoSyS
 - Demo phase will start in Nov 2012
- Scientific demonstrator provided by DLR
 - Demonstrate the service with one year of historical data on the web
 - World Data Center website
 - Static images, examples of a historic year, for PSA

Commercial service's rationale

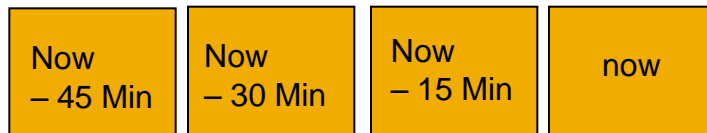
Type A



48 h forecast made by weather service yesterday

Type B

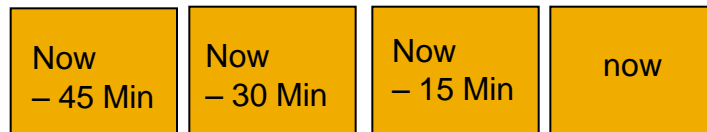
Satellite images



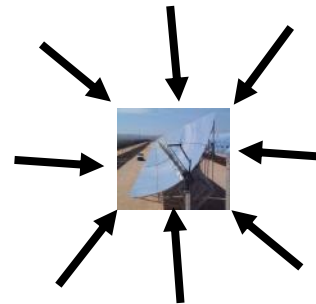
Human forecast with knowledge about upcoming cloud fields

Type C

Satellite images



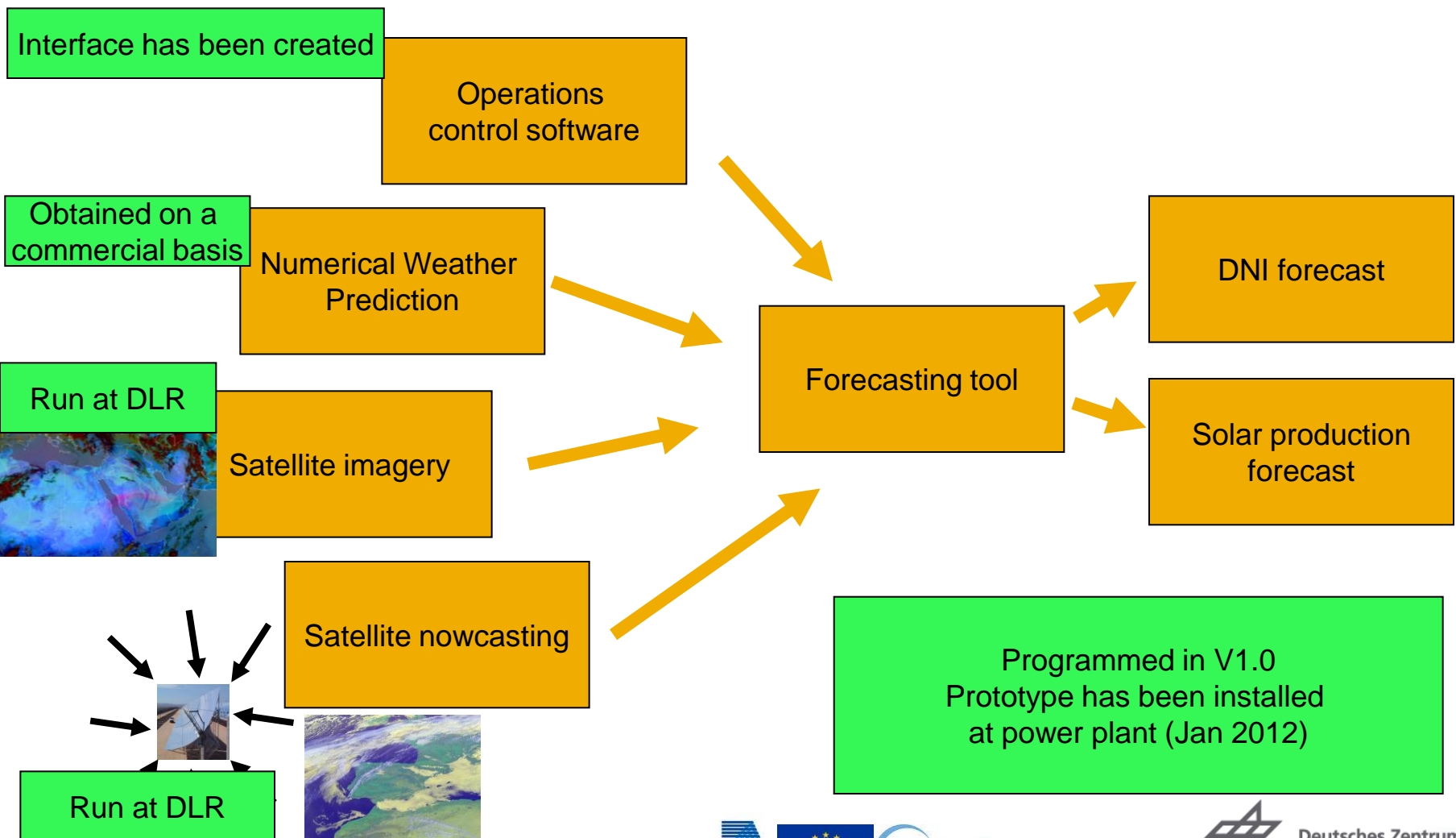
now



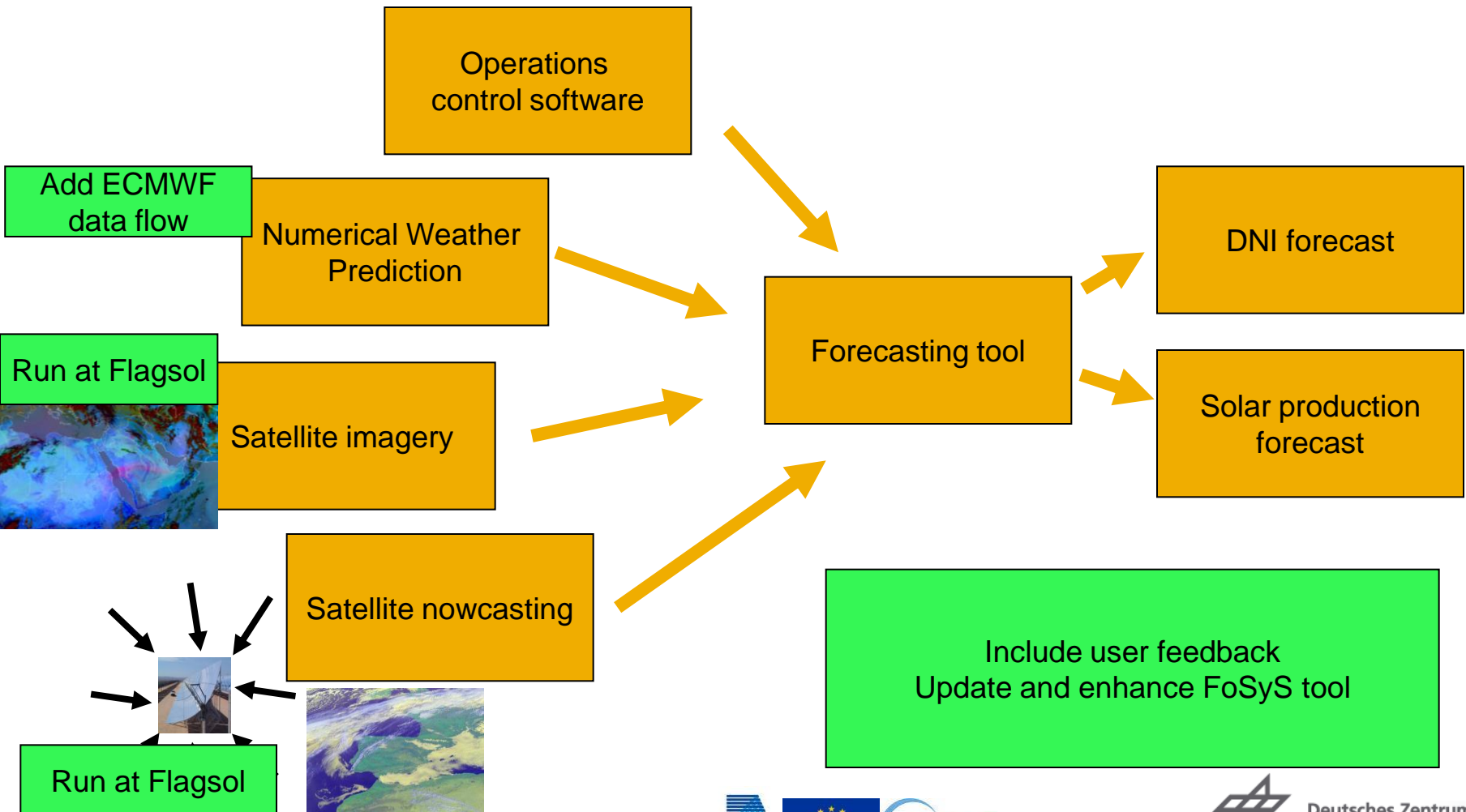
Automatic 8h-nowcast of upcoming **cloud** fields

Automatic 8h-nowcast of upcoming **DNI** values

Service at Flagsol - Status



Service at Flagsol – Next steps



Training event

- Took place at Andasol-3
- January 2012



WDC demonstrator

- Static web page
- Examples of a forecasting scheme
- Historic data
- To be implemented in autumn 2012

Use of GMES service and space component

