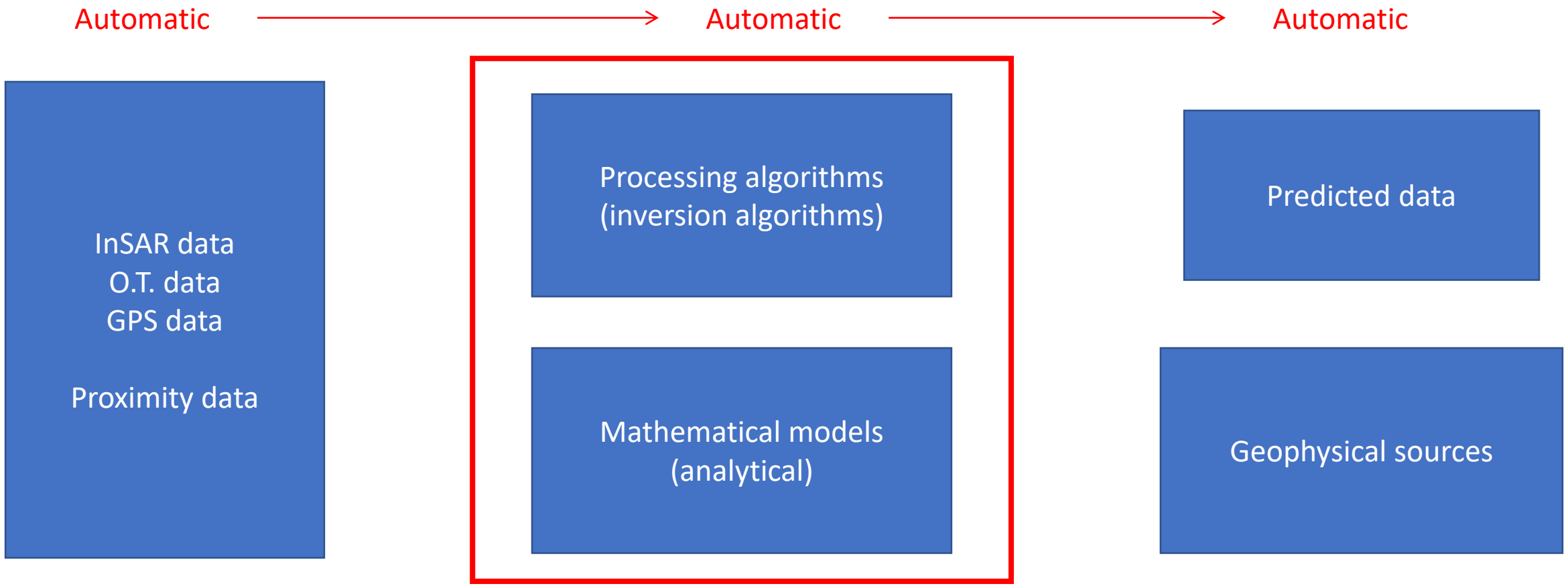
MODELING MODULE

From Space Geodesy to Geophysical processes

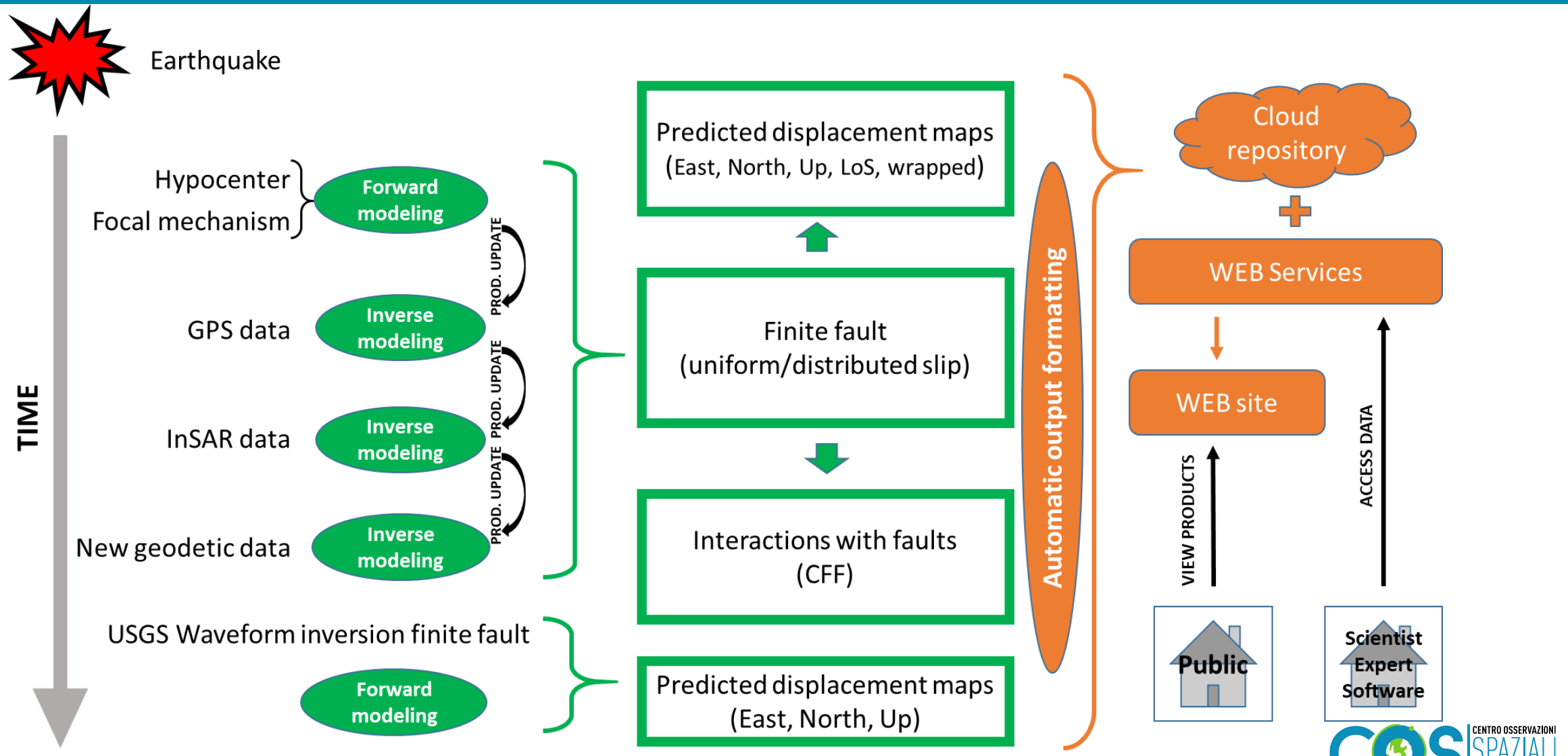
Simone Atzori

• SCIENTIFIC RATIONALE



Most of the algorithms and interfaces are already available in a commercial software

• SCIENTIFIC RATIONALE



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• OBSERVATIONAL INFRASTRUCTURE

"SAR products" COS module

And/Or

External repositories
(EPOS, COMET-LiCS portal, others…)

• TECHNOLOGICAL LABORATORIES

GEOSAR
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Since 2018!

… but other are expected

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- INFRASTRUCTURE FOR DATA MANAGEMENT
- INFRASTRUCTURE FOR DATA PROCESSING

No particular infrastructures are required to run this module. The sampling on InSAR raster maps strongly reduces the computational load. Algorithms were optimized to run on a standard PC. Storage is minimum (vector formats).

Algorithms are implemented in SARscape (sarmap, CH) and fully available in I.D.L. (by Harris).

• PRODUCTS AVAILABLE

	MATURITY (on demand)	AUTOMATIC (service)
Source models for geophysical phenomena		
earthquakes		
eruptions		
landslides		
Source models for man-induced phenomena		
mining		
nuclear explosions		
underground digging		
Scenarios of expected deformations		
Fault interactions (stress transfer)		

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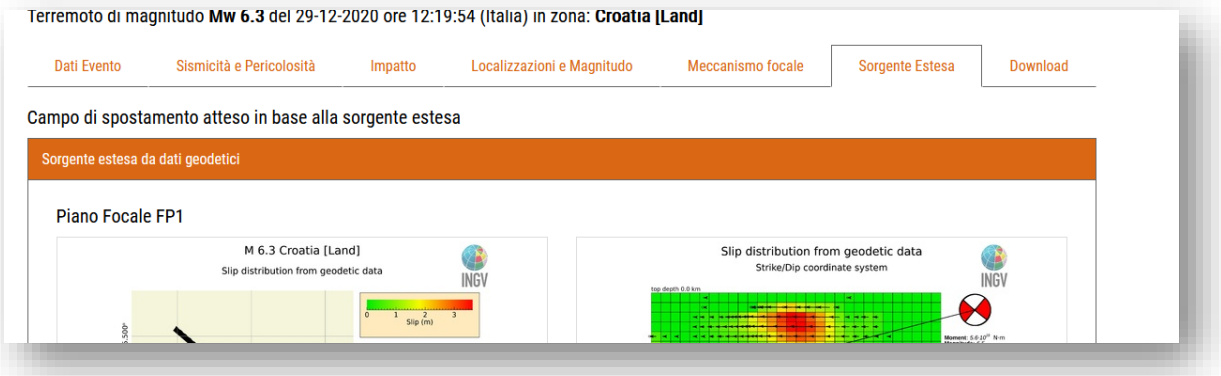
• CURRENT DISTRIBUTION OF PRODUCTS

- Scientific community (peer-reviewed papers)
- Civil Protection
- Other public institutions
- INGV internal web page (http://osiride.int.ingv.it:8585/finitesource)



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• PROGRAMS/PROJECTS OF REFERENCE

Algorithms and software were developed within scientific institutional research activity in the last 15 years. Automatism implementation started with **RICERCA LIBERA** small research projects and will be supported with the **RETI MULTIPARAMETRICHE** project.

TEAM AND AFFILIATIONS

- Simone Atzori
- Andrea Antonioli
- Nikos Svigkas

With doors open to anyone interested in contributing

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