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PIANO NAZIONALE  
DI RIPRESA E RESILIENZA



Centro Nazionale di Ricerca in HPC,  
Big Data and Quantum Computing



Centro Nazionale di Ricerca in HPC,  
Big Data and Quantum Computing

## WP5 HPC service and Access

*Gasparrini Dario*

Spoke 3 General Meeting

12-14 Giugno 2023

Dipartimento di Fisica e Astronomia – Università di  
Catania

**Scope:** Managing, maintaining and deploying an integrated environment providing the tools for the efficient development of the work described in the other WPs

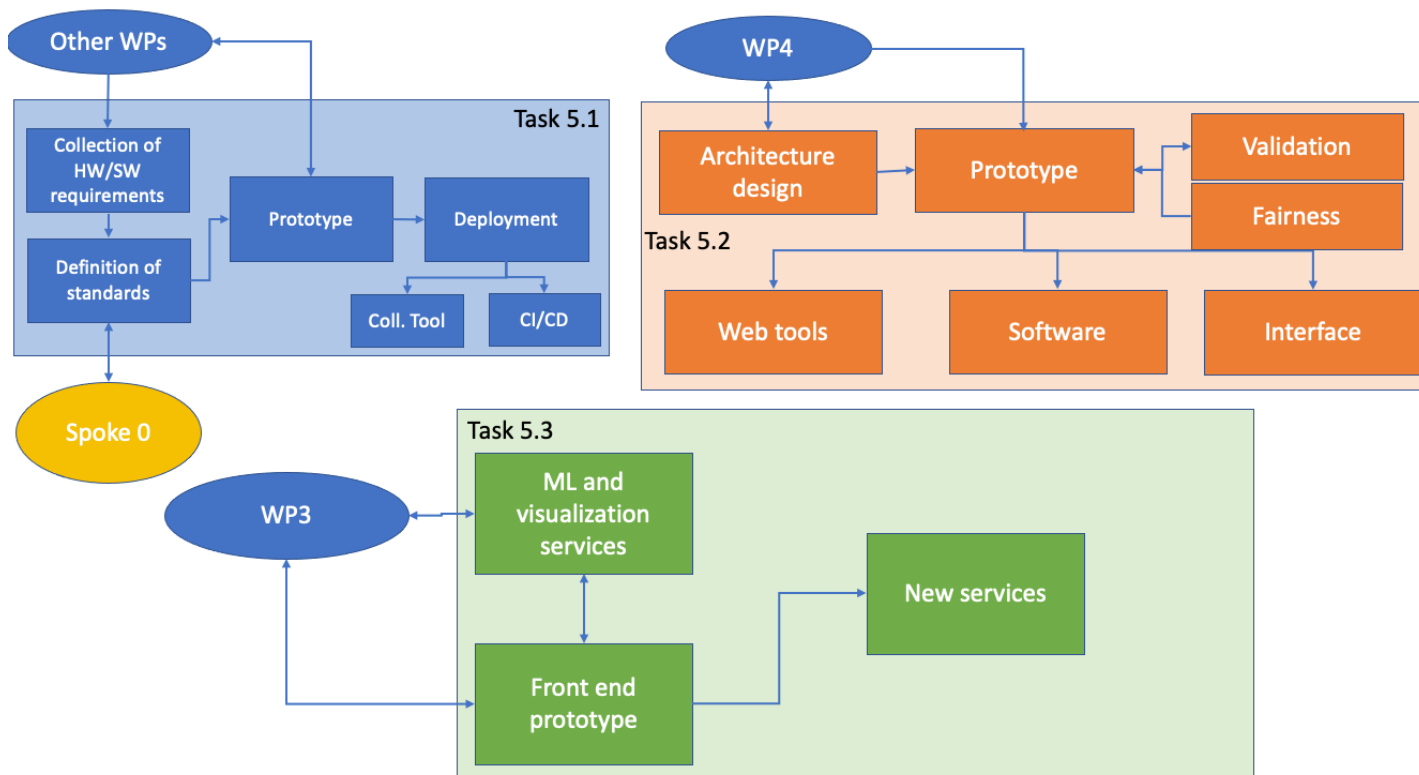
### Tasks:

- T5.1 Collaborative software development, management and continuous integration platform
- T5.2 Design, implementation and validation of an interoperable service architecture
- T5.3 ML and Visualization enabling services deployment and HPC/Cloud integration

WP leader: Dario Gasparrini (INFN Roma2), Co-Lead: Diego Chiangottini (INFN PG)



- Dario Gasparrini (INFN)
- Diego Ciangottini (INFN)
- Romolo Polito (INAF)
- Cristina Re (INAF)
- 1- year Technologist (INAF) after summer
- 2-year Technologic Grant (INFN), results soon
- Matteo Duranti (INFN)
- Valerio Formato (INFN)





Legenda		settembre 2022	ottobre 2022	novembre 2022	dicembre 2022	gennaio 2023	febbraio 2023	marzo 2023	aprile 2023	maggio 2023	giugno 2023	luglio 2023	agosto 2023	settembre 2023	ottobre 2023	novembre 2023	dicembre 2023	gennaio 2024	febbraio 2024	marzo 2024	aprile 2024	maggio 2024	giugno 2024	luglio 2024	agosto 2024	settembre 2024	ottobre 2024	novembre 2024	dicembre 2024	gennaio 2025	febbraio 2025	marzo 2025	aprile 2025	maggio 2025	giugno 2025	luglio 2025	agosto 2025
		Year 1												Year 2												Year 3											
Durata task		Year 1												Year 2												Year 3											
Durata attività		Q1			Q2			Q3			Q4			Q5			Q6			Q7			Q8			Q9			Q10			Q11			Q12		
Project Milestones		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
<b>WP 5 task</b>		M1		M2		M3						M4				M5								M6				M7								M8	
<b>WP 5 task</b>		<b>HPC Services and Access</b>																																			
T5.1: Collaborative software development, management and continuous integration platform	Attività																																				
	Collection of HW/SW requirements																																				
	Definitions of standards																																				
	Prototype design																																				
	Integration and Validation																																				
Report writing																																					
T5.2: T5.2 Design, implementation and validation of an interoperable service architecture	Architecture design																																				
	Prototype development																																				
	Integration & Validation (FAIR)																																				
	Code Release and Documentation																																				
	Internal Report writing																																				
	Report writing																																				
T5.3 ML and Visualization enabling services deployment and HPC/Cloud integration	ML and Visualization design																																				
	Frontend prototype development																																				
	Integration & Validation																																				
	Code Release and Documentation																																				
	Internal Report writing																																				
	Report writing																																				
Deliverables		D3		D4								D8		D9										D11		D15								D29			

## Status of the activities:

### Collection of HW/SW requirements (Task 5.1):

Waiting for hub suggestions, we requested to all working groups to estimate what they need in terms of HW/SW

- Batch system
- Continuous integration
- CPU time
- RAM
- Architecture
- Accelerators
- ...

## Status of the activities:

### Collection of HW/SW requirements (Task 5.1):

Waiting for hub suggestions, we requested to all working groups to estimate what they need in terms of HW/SW

- Batch system
- Continuous integration
- CPU time
- RAM
- Architecture
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- ...

A letter was sent especially about our request in term of CPU time and RAM

## Status of the activities:

### Collaborative software (Task 5.1):

Waiting for hub suggestions, we explored the opportunity to have a documental repository using known software like RedMine, Confluence (using a INFN licence) but we understood that is better a open and free solution.

While exploring these opportunities, we will continue to use Google Documents as a document repository

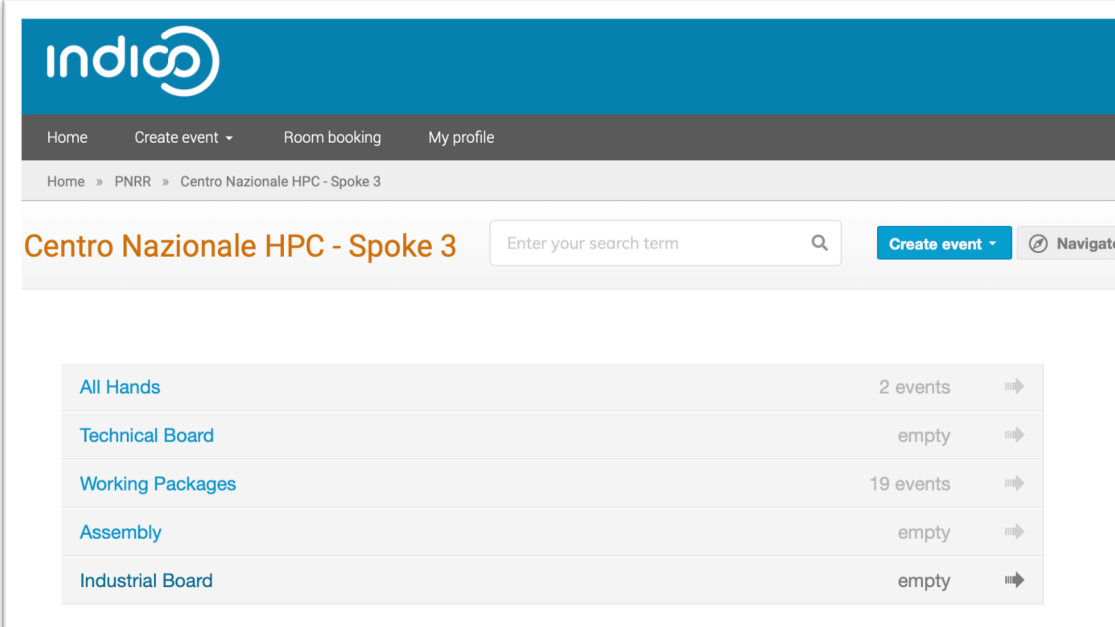


## Status of the activities:

### Collaborative software (Task 5.1):

As above, we started our Indico pages to keep tracks of our meetings, our minutes.

Now Indico is hosted by [ict.inaf.it](https://ict.inaf.it)



The screenshot shows the Indico web interface. The header features the Indico logo and navigation links: Home, Create event, Room booking, and My profile. Below the header, the breadcrumb trail reads: Home » PNRR » Centro Nazionale HPC - Spoke 3. The main content area displays the title "Centro Nazionale HPC - Spoke 3" in orange, a search bar with the placeholder "Enter your search term", and a "Create event" button. A table lists various event categories with their respective counts and right-pointing arrows:

All Hands	2 events	⇒
Technical Board	empty	⇒
Working Packages	19 events	⇒
Assembly	empty	⇒
Industrial Board	empty	⇒

## Status of the activities:

### Collaborative software (Task 5.1):

We are in contact with a website design company to create a website.

It will be very similar to the Hub website where you will access to it



## Status of the activities:

### Collaborative software (Task 5.1): Website Features

- Wordpress as content management system (easy and responsive)
- Updated weekly or biweekly with the news and the progress from Spoke 3
- Private login space (for any purpose)
- Software repository link (login protected)
- Documental repository link (login protected)

Now it will be hosted by [ict.inaf.it](http://ict.inaf.it) on a virtual machine waiting hosting from ICSC



## Future activities

We are trying to understand if GitHub can be used as software repository

Ad interim, I will be in charge of the content creation of the website, but I need help (text, images, ...) from other WP leaders

As soon some space is available at ICSC resources, we will start to move everything there