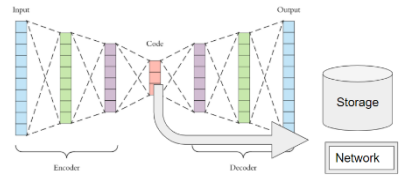
IWAPP follow up

What’s next

IWAPP Topic discussion and panel outputs

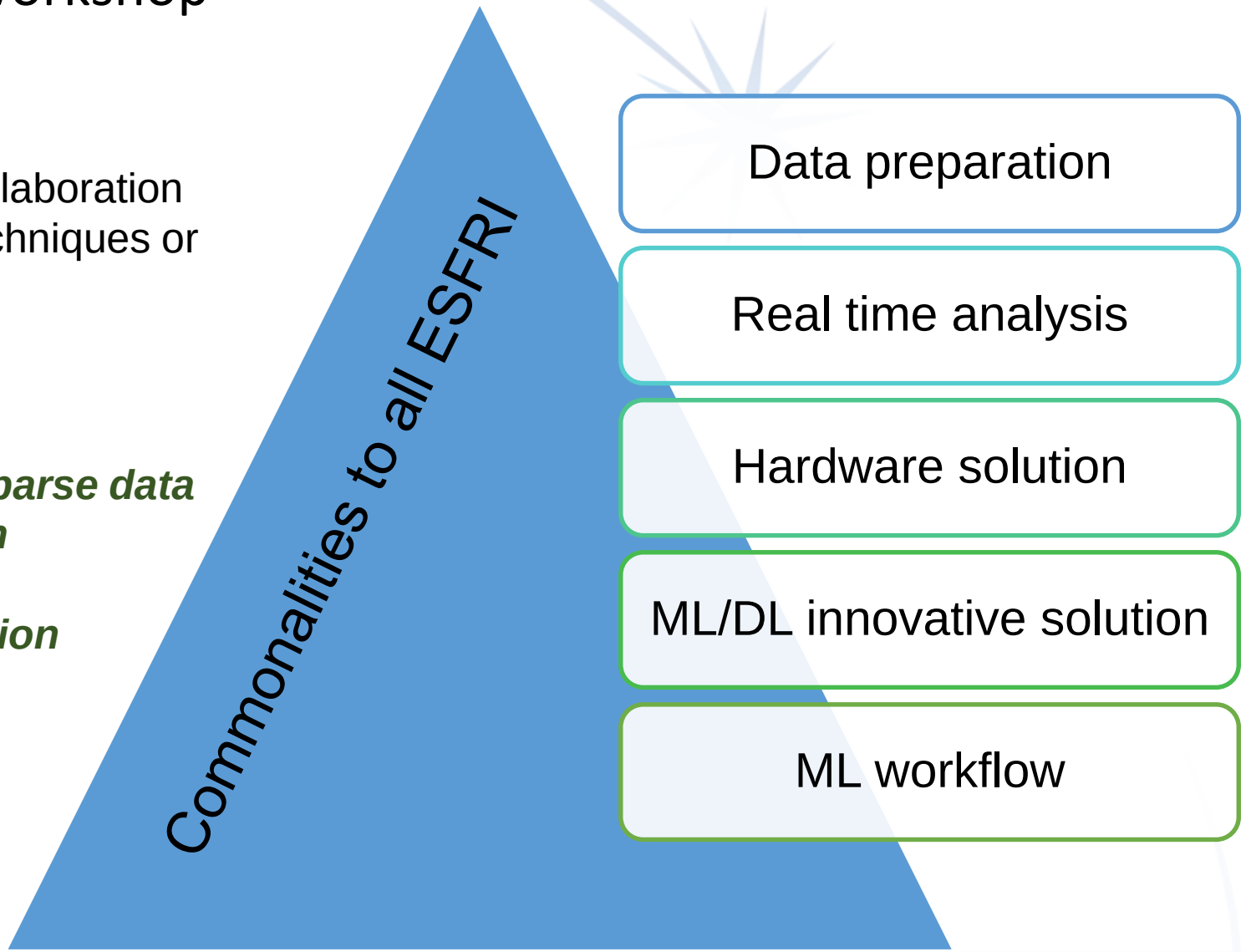
G1:Data reduction and formats	joining datasets is a nightmare if you go beyond the catalogue level
	metadata is key
	generate required metadata on the fly from a protocol of the workflow/calibration
G2: Use of Alternative hardware	FPGA/TPU
	Data compression
	Needed for Real Time
	Sparse data
G3:ML and DL techniques	Sharing is fundamental in ML/DL
	https://iml-wg.github.io/HEPML-LivingReview/ (probably lacking astro) paperswithcode.com, https://librecv.org /Starter-book/tutorials
G4: ML workflow	join CTA and KM3NeT efforts on simulating high-energy cosmic ray events by using variational autoencoders. 
G5: Real Time analysis	Data reduction Fundamental for Real time.
	SMARTHEP ITN network on real-time analysis for LHC, industry (& beyond) will kick off in October 2021 (coordinated by CD, Maurizio Pierini is also involved) → more opportunities to discuss at that point

Funded by the European Union's Horizon 2020 - Grant N° 824064

IWAPP workshop

several reasons for collaboration with the use of new techniques or hardware

- ***Data versioning***
- ***Data reduction***
- ***Graph networks/sparse data***
- ***Anomaly detection***
- ***Edge computing***
- ***Parameter estimation***
- ***Normalizing flows***
- ***Multi-task***
- ***Starter-book***
- ***Real time analysis***
- ***Multi-messenger***



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What's next?

- MOU with different partners to share data for the Multi-Messenger project
- Integration of Wavefier workflow with 2 or more messengers (GRB, neutrinos and GWs)
- integration of WP3 workflow in ESAP (WP5) platform.

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