

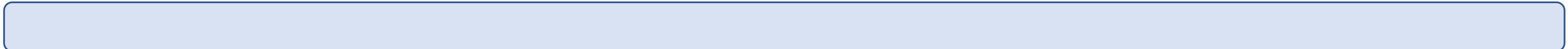


RADIOBLOCKS

Industrial Partnerships and Future Collaborations

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RADIOBLOCKS

HORIZON-INFRA-2022-TECH-01

4 years: 1st March 2023 to 28 Feb 2027

Budget from EC: 9M Euros
+ 3M Euros contribution from Associate Partners

33 partners

WP1 Project Management

WP2 Novel Detectors and Components

develop key components for future sensitive, wideband receivers

WP3 Digital Receivers

improve system temperature, bandwidth and field-of-view

WP4 Data transport and correlation

efficient, and/or high-performance signal processing building blocks based on FPGA or GPUs for next-generation correlators

WP5 Data processing tool kit for advanced radio astronomy

modular, open-source and flexible analysis toolkit components for rapid, reproducible and scalable analysis of the large-volume and complex data products

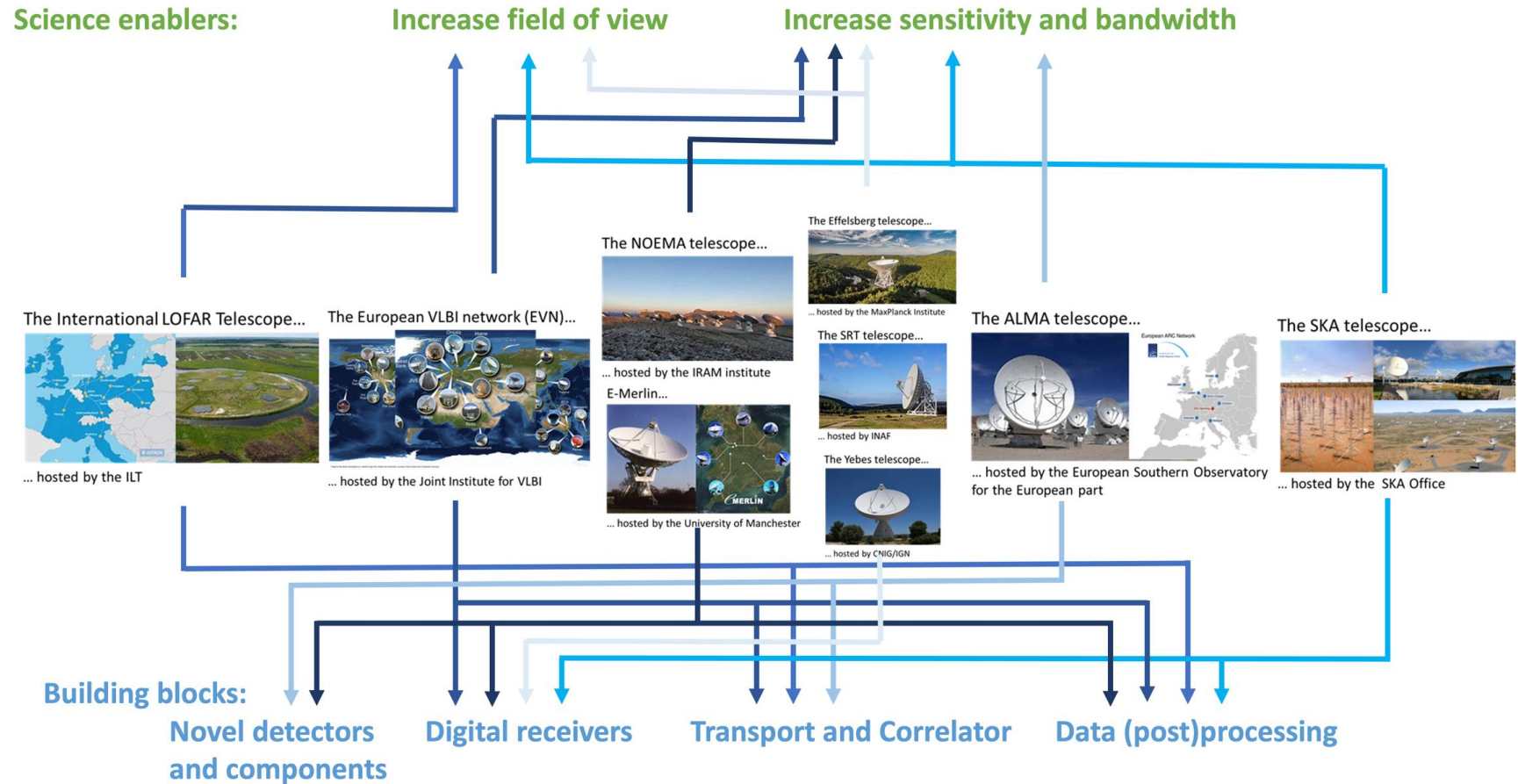
RADIOBLOCKS goals:

- Maximizing boost for the European major world-leading research infrastructures in radio astronomy
- Addressing common challenges towards mid- and long-term scientific visions
- Building blocks as new instruments to increase the science delivery potential of Europe's major radio astronomical observatories.
- Co-developing advanced technologies together with industries by increasing the partners' technological levels and strengthening their market positions

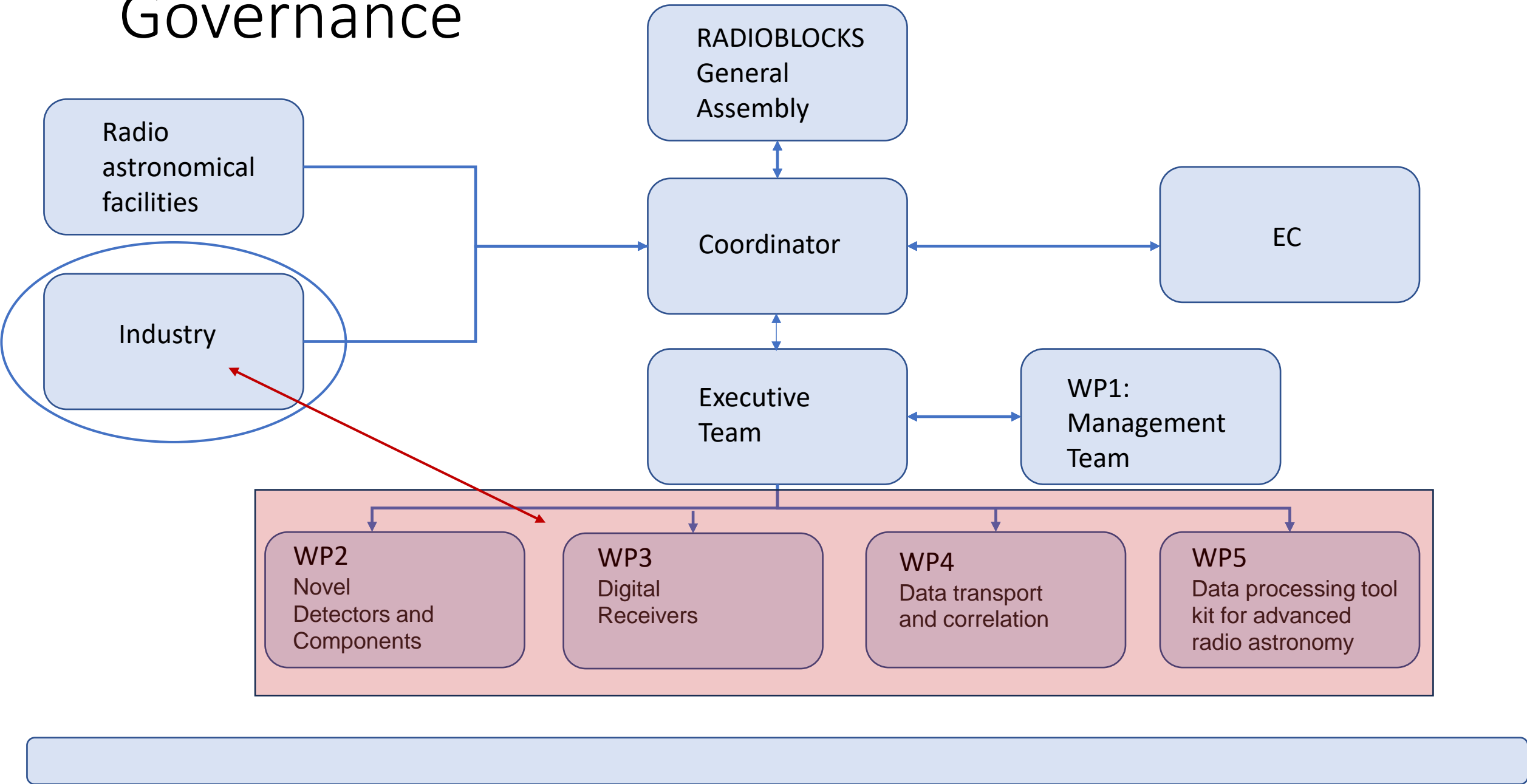
RADIOBLOCKS

The 'building block' approach structures RADIOBLOCKS into four stages of the signal/data flow common to almost all radio telescopes/arrays and maximises the applicability of the developments to a wide range of world leading facilities.

The project fits very well in the context of the local, regional and global scenarios for radio astronomy.



Governance





RADIOBLOCKS and industrial partnerships

RADIOBLOCKS actively engages with industry to co-develop advanced technologies, fostering a mutually beneficial ecosystem.

Core collaboration areas:

Industry partners are crucial in the development of cutting-edge technologies for radio astronomy.

Collaboration spans the entire signal chain, from detectors and components to digital receivers, data transport, and processing.

Partners contribute to production techniques, positioning them for outsourced production work related to astronomy.

Formal industrial contributions:

- TTI Norte: Involved in the production of cryogenic low noise amplifiers.
- Lytid: Contributing to the development of local oscillators.
- Sioux: Technologies: Working on tensor-core beamformers.

Strategic advantages:

Opportunities to develop new products with commercial potential.

Access to a network of leading research institutions and industry experts.

Strengthened market position through co-development and innovation.

Potential for technology spin-offs with applications beyond astronomy.

Participation in a European Innovation System.

