Proposals should aim at developing new innovative applications, building also on the combination of EGNSS with earth observation and Copernicus services, with commercial impact or with satellite communication. Proposals should have a clear market uptake perspective. Below are some areas which are identified as especially promising for further EGNSS application development:

**Agriculture**: Automated machine guidance, precision farming and machine control and field boundary measurements are possible areas to be addressed.

**Surveying and Mapping**: Land survey, marine survey, cadastral and geodesy, and construction are possible areas to be addressed.

**Timing and Synchronisation**: Telecommunications, power generation and finance are possible areas to be addressed.

**Other professional applications**: Clearly demonstrating amongst others the contribution of EGNSS differentiators, the potential of integration with earth observation data, and the future commercial potential are also invited.

For all the professional areas, the development and innovation should build on:

- Multiple-frequencies E1, E5 and E6;
- Galileo specific signal modulation, e.g. AltBOC;
- High precision and authentication services that will be provided by Galileo, i.e. in the frame of the commercial service;
- Fusion with other data, such as from earth observation satellites or other in-situ sensors.

EGNSS should be part and parcel of the envisaged solution(s). However, where a combination of EGNSS with other technologies is required to make the application(s) work, this is not excluded from the scope.

In projects to be funded under this topic participation of industry, in particular SMEs, is encouraged.

The proposal shall have a clear intention to commercialise the products and services developed, including a business plan.

Proposals addressing PRS (Public Regulated Service) related applications are not in the scope of this action.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1 and 3 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Professional applications are covering different market segments. Precision agriculture, mapping and surveying have been the pioneers in the use of GNSS since the early years. The challenge is to make these applications more affordable, easy to use and integrated with other solutions and technologies, including for example earth observation, e.g. Copernicus services, in order to enable new targeted innovative solutions. EGNSS is offering additional accuracy and features, such as multiple frequencies and the high precision service in the frame of the future commercial service, contributing to enabling these innovative solutions, including in challenging environments. Power networks, telecommunication networks and financial transactions[[Cf. also Article 50 of Directive 2014/65/EU on Markets in Financial Instruments.]] are today synchronised, many of them using GNSS. These networks are becoming more and more distributed (e.g. distributed power generation of renewable energies), interconnected and more demanding in terms of synchronisation performances (e.g. in 4G-LTE and future internet), or requiring authenticated solutions as for the financial transaction time stamping. The specific challenge is in this case to build on the enhanced capabilities offered by Galileo that will provide high accurate timing information and authentication services, to develop a new generation of high performing, reliable and EU independent timing and synchronisation applications that can cope with these emerging and demanding needs.

Activities should aim at developing highly innovative applications taking advantage of Galileo and EGNOS aiming at decreasing the barriers to access such professional applications, in term of price of the solution and easiness to use, increasing the number of users and explore new innovative use of GNSS. Specifically for agriculture the expected impact is also to improve the productivity and decrease the environmental impact. For timing and synchronisation applications, the expected impact is to contribute to cope with emerging network synchronisation needs in terms of accuracy and robustness, while contributing to improve EU dependency from other GNSS.