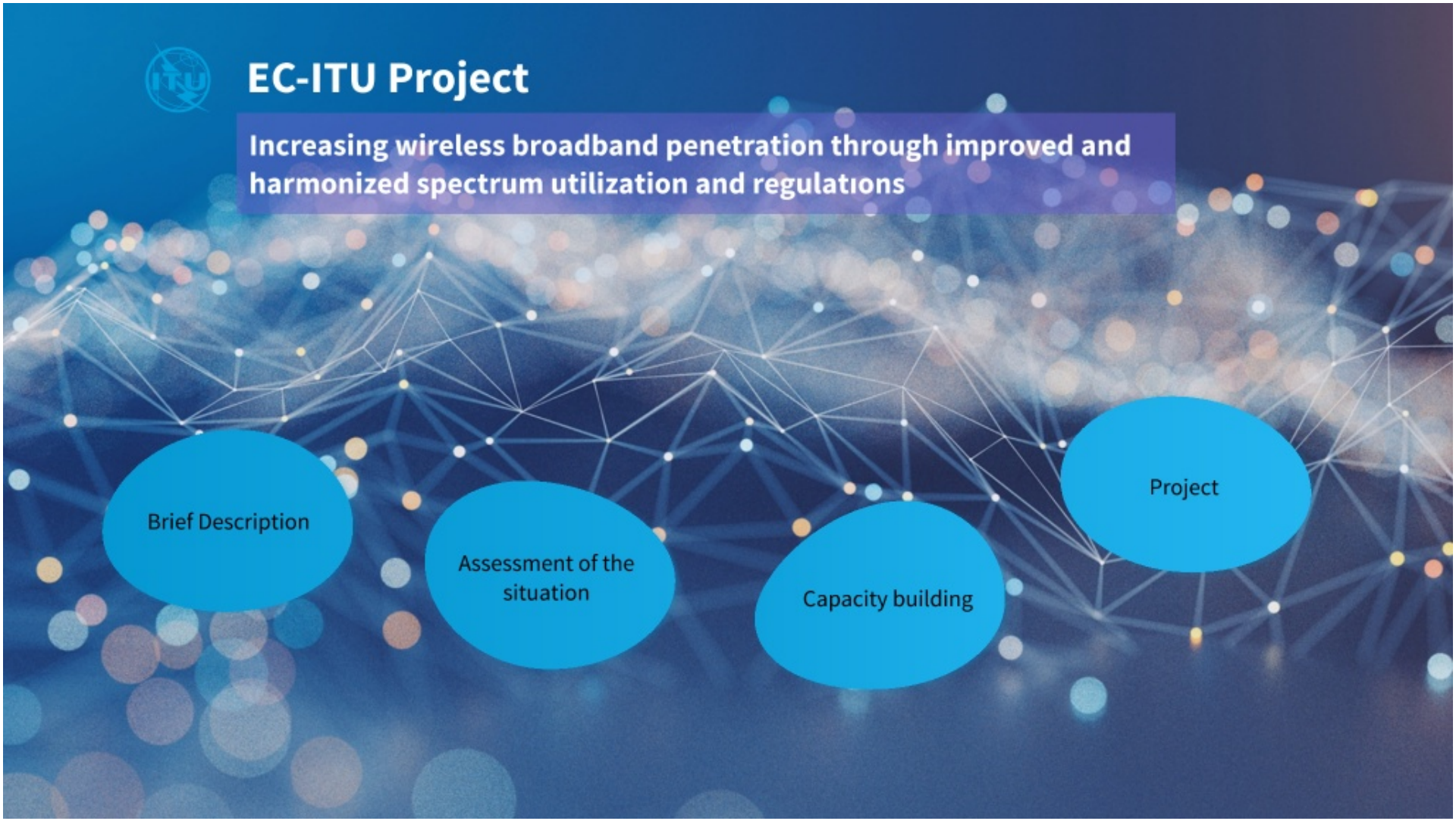
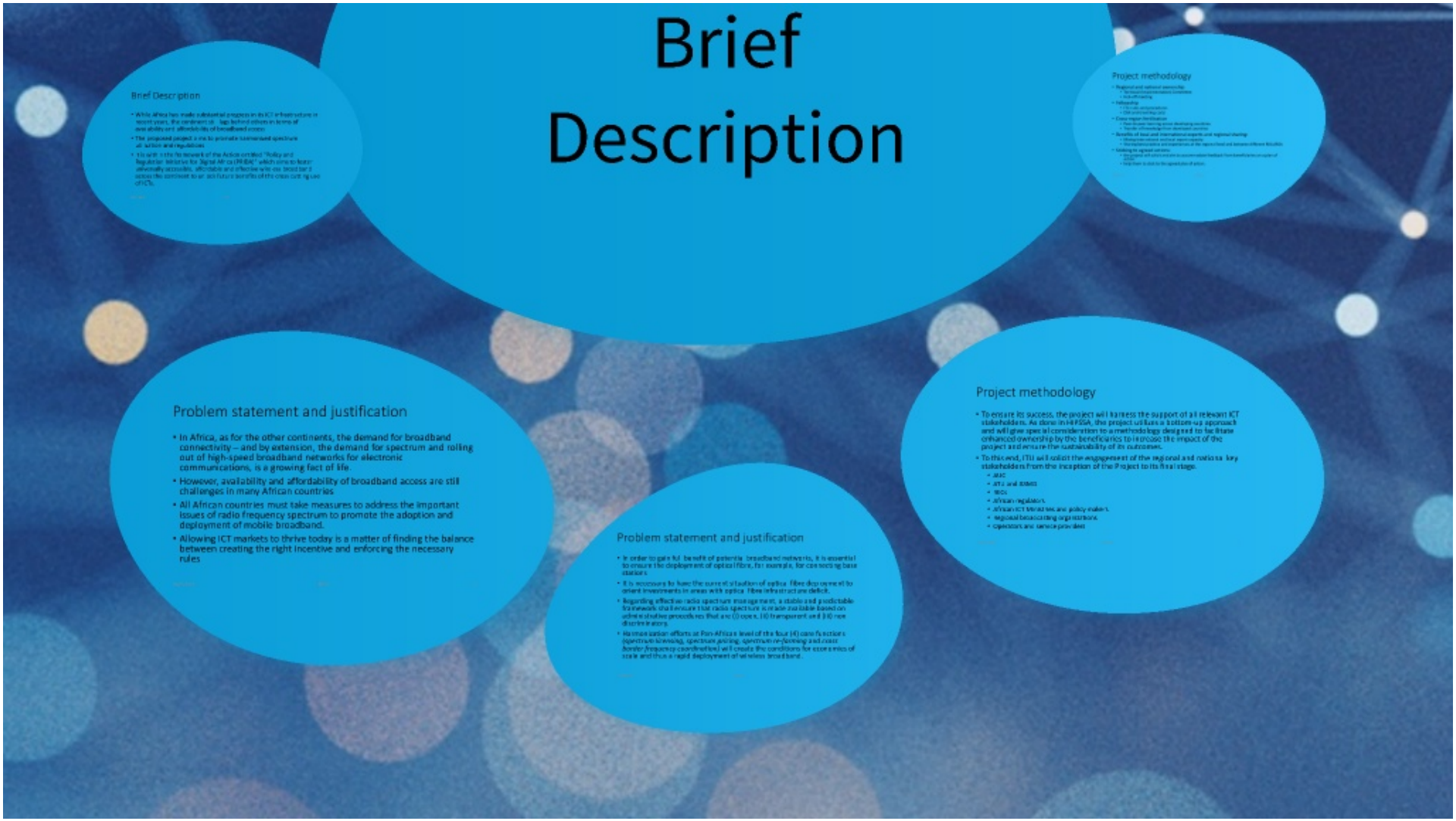
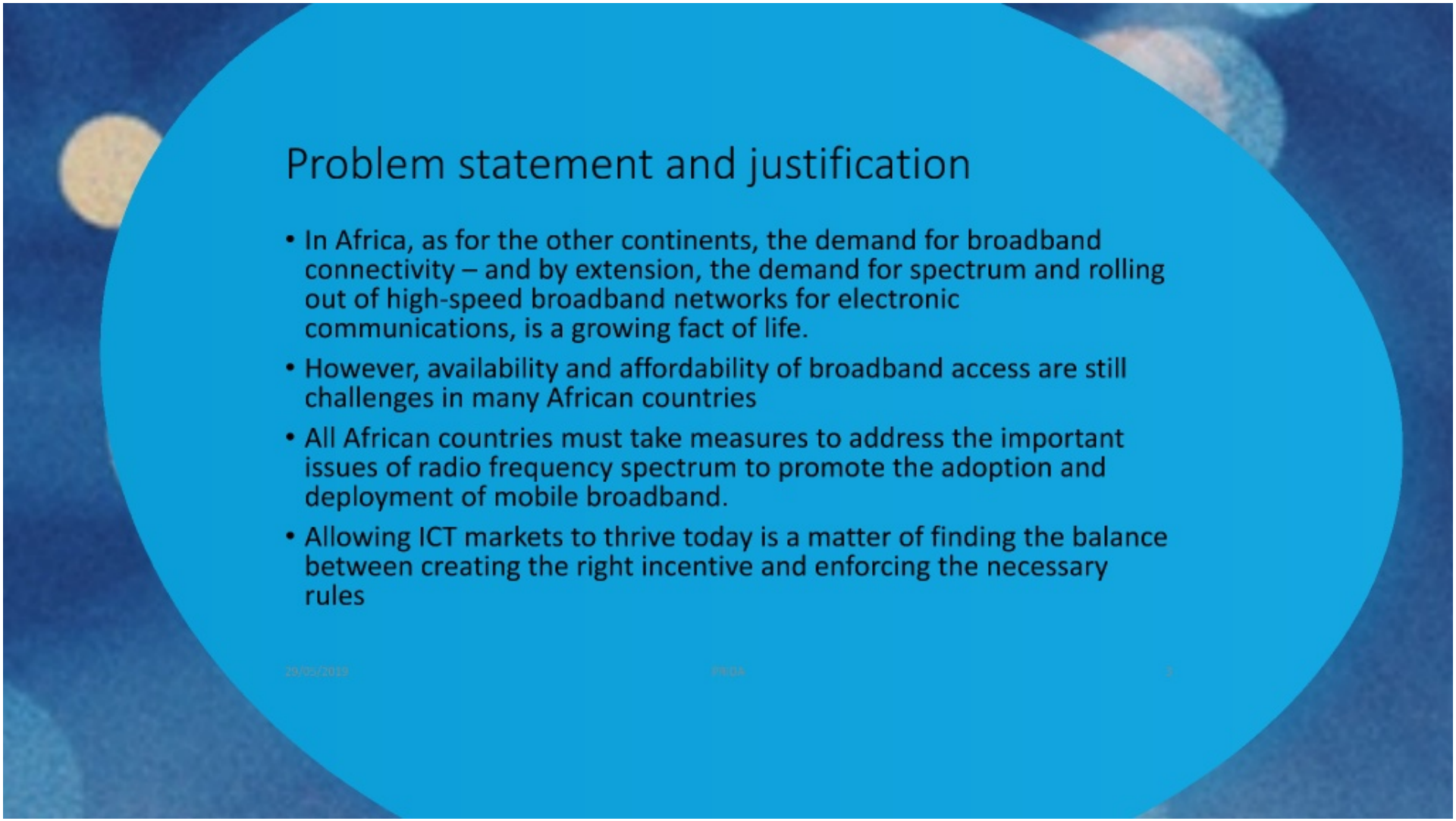

EC-ITU Project
Increasing wireless broadband penetration through improved and harmonized spectrum utilization and regulations
Brief Description
Assessment of the situation
Capacity building
Project


Brief Description
Brief Description
Problem statement and justification
Problem statement and justification
Project methodology
Project methodology

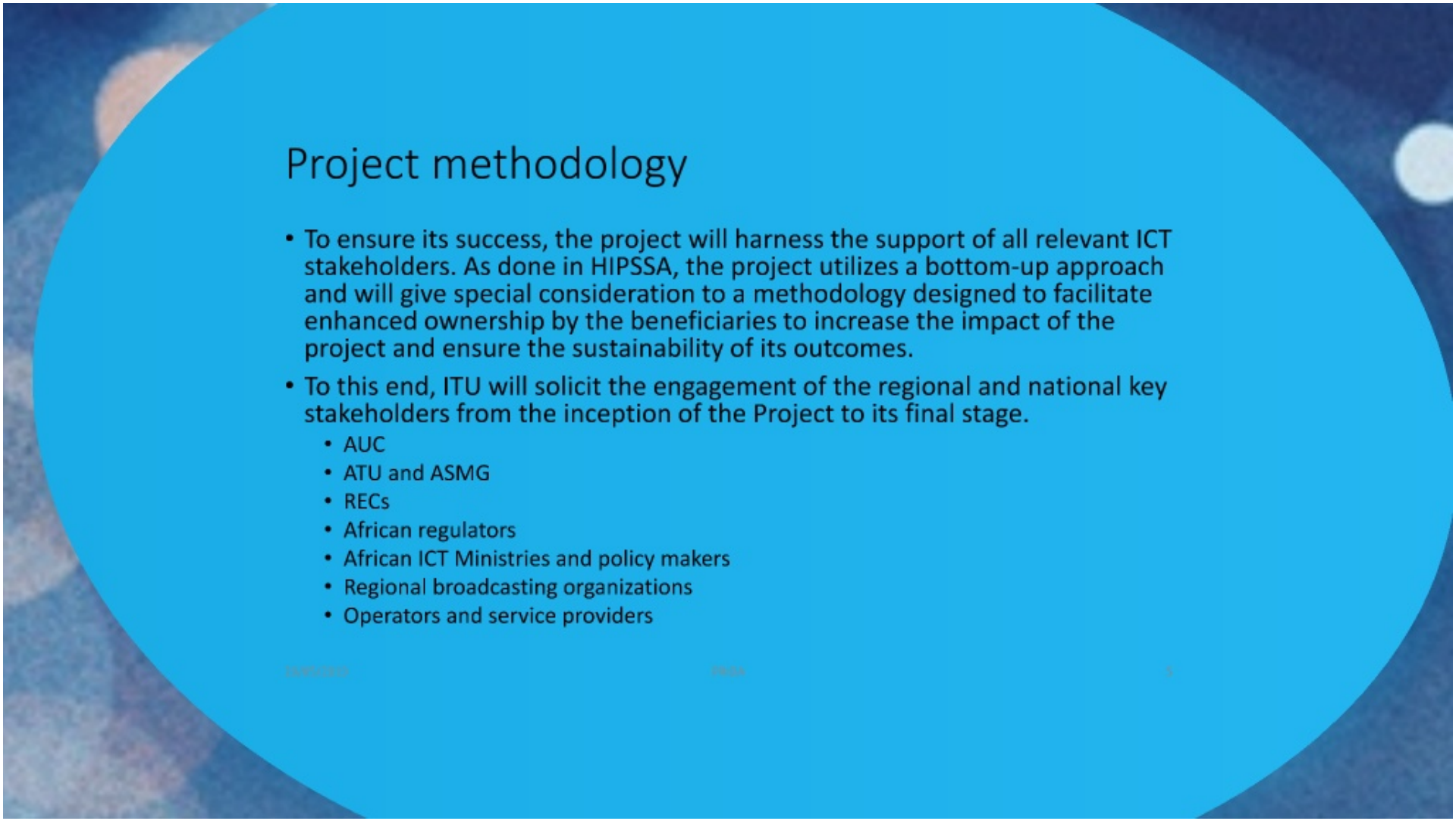
Brief Description

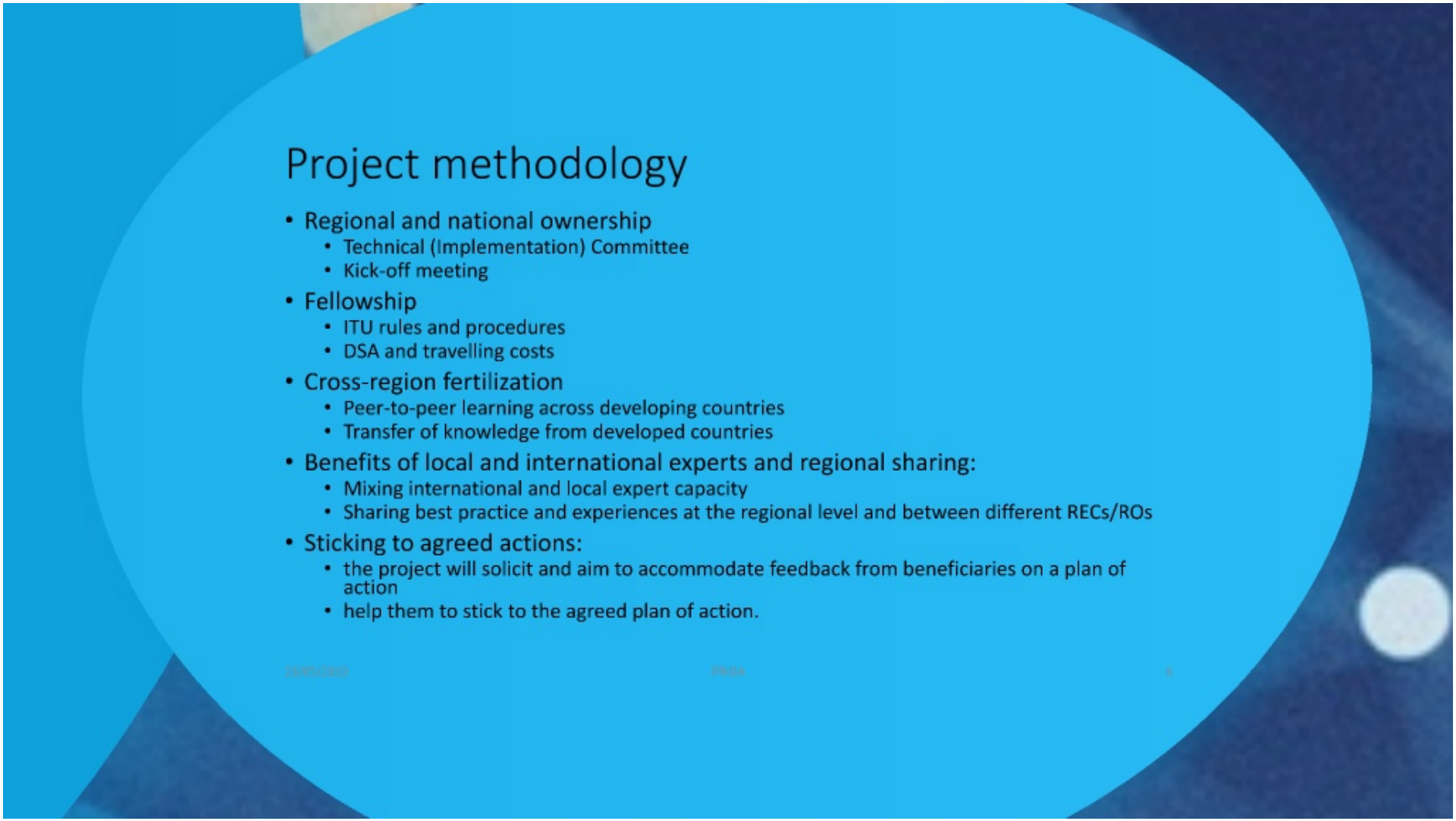
- While Africa has made substantial progress in its ICT infrastructure in recent years, the continent still lags behind others in terms of availability and affordability of broadband access.
- The proposed project aims to promote harmonized spectrum utilization and regulations
- It is within the framework of the Action entitled “Policy and Regulation Initiative for Digital Africa (PRIDA)” which aims to foster universally accessible, affordable and effective wireless broadband across the continent to unlock future benefits of the cross cutting use of ICTs.

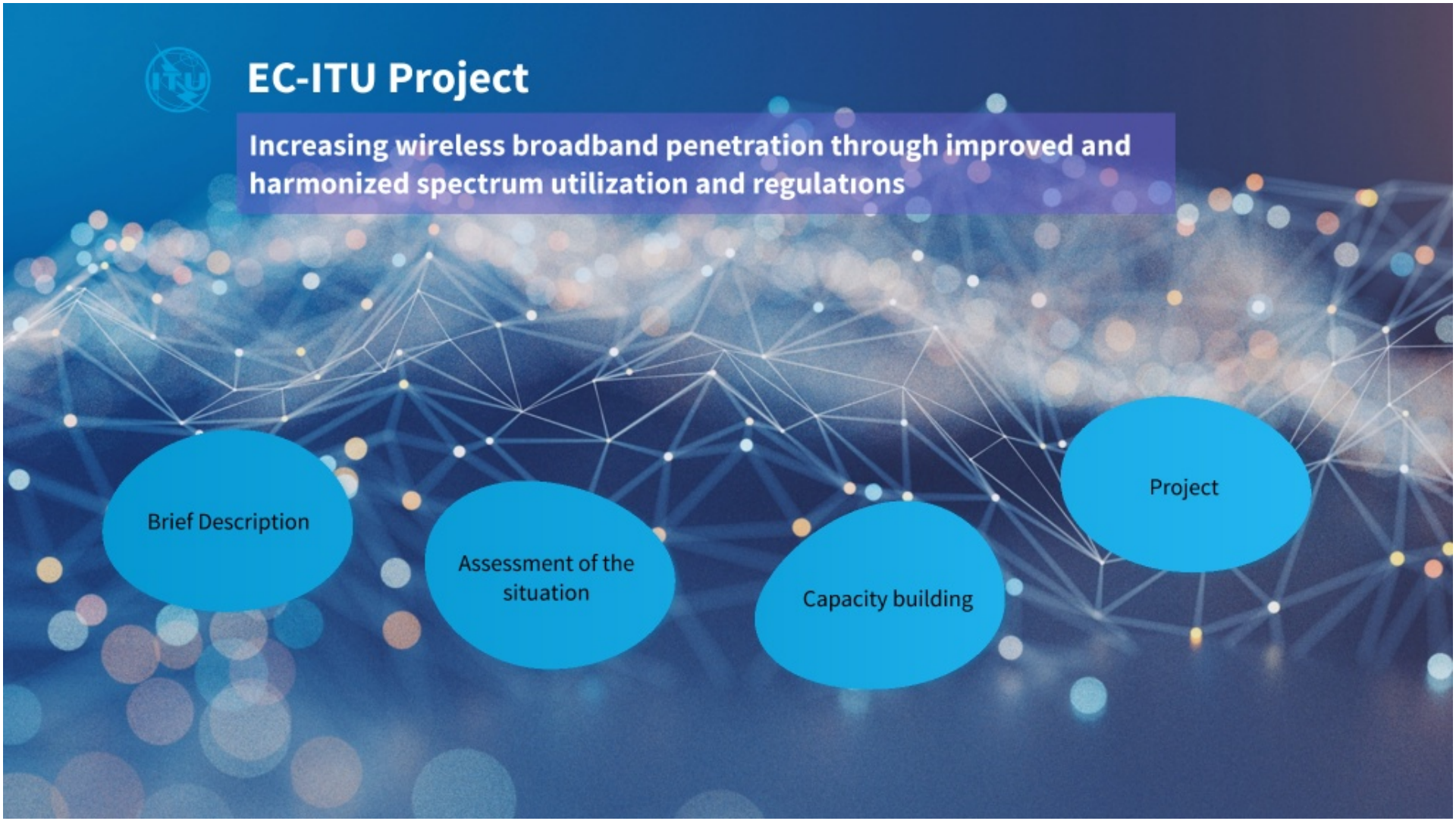

Problem statement and justification
• In Africa, as for the other continents, the demand for broadband connectivity – and by extension, the demand for spectrum and rolling out of high-speed broadband networks for electronic communications, is a growing fact of life.
• However, availability and affordability of broadband access are still challenges in many African countries
• All African countries must take measures to address the important issues of radio frequency spectrum to promote the adoption and deployment of mobile broadband.
• Allowing ICT markets to thrive today is a matter of finding the balance between creating the right incentive and enforcing the necessary rules

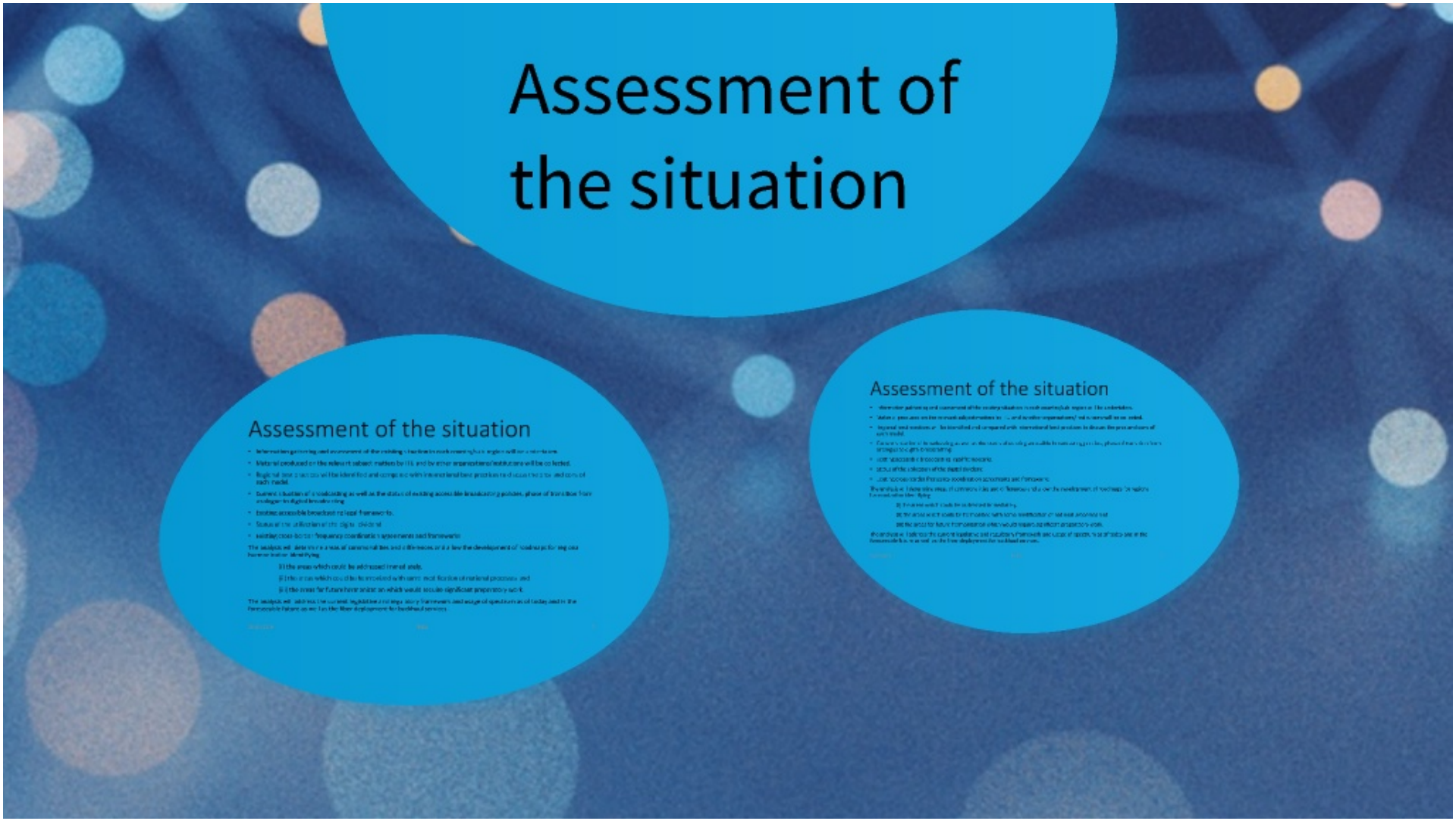
Problem statement and justification

- In order to gain full benefit of potential broadband networks, it is essential to ensure the deployment of optical fibre, for example, for connecting base stations
- It is necessary to have the current situation of optical fibre deployment to orient investments in areas with optical fibre infrastructure deficit.
- Regarding effective radio spectrum management, a stable and predictable framework shall ensure that radio spectrum is made available based on administrative procedures that are (i) open, (ii) transparent and (iii) non-discriminatory.
- Harmonization efforts at Pan-African level of the four (4) core functions (*spectrum licensing, spectrum pricing, spectrum re-farming* and *cross border frequency coordination)* will create the conditions for economies of scale and thus a rapid deployment of wireless broadband.


Project methodology
• To ensure its success, the project will harness the support of all relevant ICT stakeholders. As done in HIPSSA, the project utilizes a bottom-up approach and will give special consideration to a methodology designed to facilitate enhanced ownership by the beneficiaries to increase the impact of the project and ensure the sustainability of its outcomes.
• To this end, ITU will solicit the engagement of the regional and national key stakeholders from the inception of the Project to its final stage.
• AUC
• ATU and ASMG
• RECs
• African regulators
• African ICT Ministries and policy makers
• Regional broadcasting organizations
• Operators and service providers


Project methodology
• Regional and national ownership
• Technical (Implementation) Committee
• Kick-off meeting
• Fellowship
• ITU rules and procedures
• DSA and travelling costs
• Cross-region fertilization
• Peer-to-peer learning across developing countries
• Transfer of knowledge from developed countries
• Benefits of local and international experts and regional sharing:
• Mixing international and local expert capacity
• Sharing best practice and experiences at the regional level and between different RECs/ROs
• Sticking to agreed actions:
• the project will solicit and aim to accommodate feedback from beneficiaries on a plan of action
• help them to stick to the agreed plan of action.


EC-ITU Project
Increasing wireless broadband penetration through improved and harmonized spectrum utilization and regulations
Brief Description
Assessment of the situation
Capacity building
Project


Assessment of the situation
Assessment of the situation
Assessment of the situation

Assessment of the situation

- Information gathering and assessment of the existing situation in each country/sub-region will be undertaken.
- Material produced on the relevant subject matters by ITU and by other organizations/institutions will be collected.
- Regional best practices will be identified and compared with international best practices to discuss the pros and cons of each model.
- Current situation of broadcasting as well as the status of existing accessible broadcasting policies, phase of transition from analogue to digital broadcasting
- Existing accessible broadcasting legal frameworks.
- Status of the utilization of the digital dividend
- Existing cross-border frequency coordination agreements and frameworks

The analysis will determine areas of commonalities and differences and allow the development of roadmaps for regional harmonization identifying

(i) the areas which could be addressed immediately,

(ii) the areas which could be harmonized with some modification of national processes and

(iii) the areas for future harmonization which would require significant preparatory work.

The analysis will address the current legislative and regulatory framework and usage of spectrum as of today and in the foreseeable future as well as the fiber deployment for backhaul services.

Assessment of the situation

- Information gathering and assessment of the existing situation in each country/sub-region will be undertaken.
- Material produced on the relevant subject matters by ITU and by other organizations/institutions will be collected.
- Regional best practices will be identified and compared with international best practices to discuss the pros and cons of each model.
- Current situation of broadcasting as well as the status of existing accessible broadcasting policies, phase of transition from analogue to digital broadcasting
- Existing accessible broadcasting legal frameworks.
- Status of the utilization of the digital dividend
- Existing cross-border frequency coordination agreements and frameworks

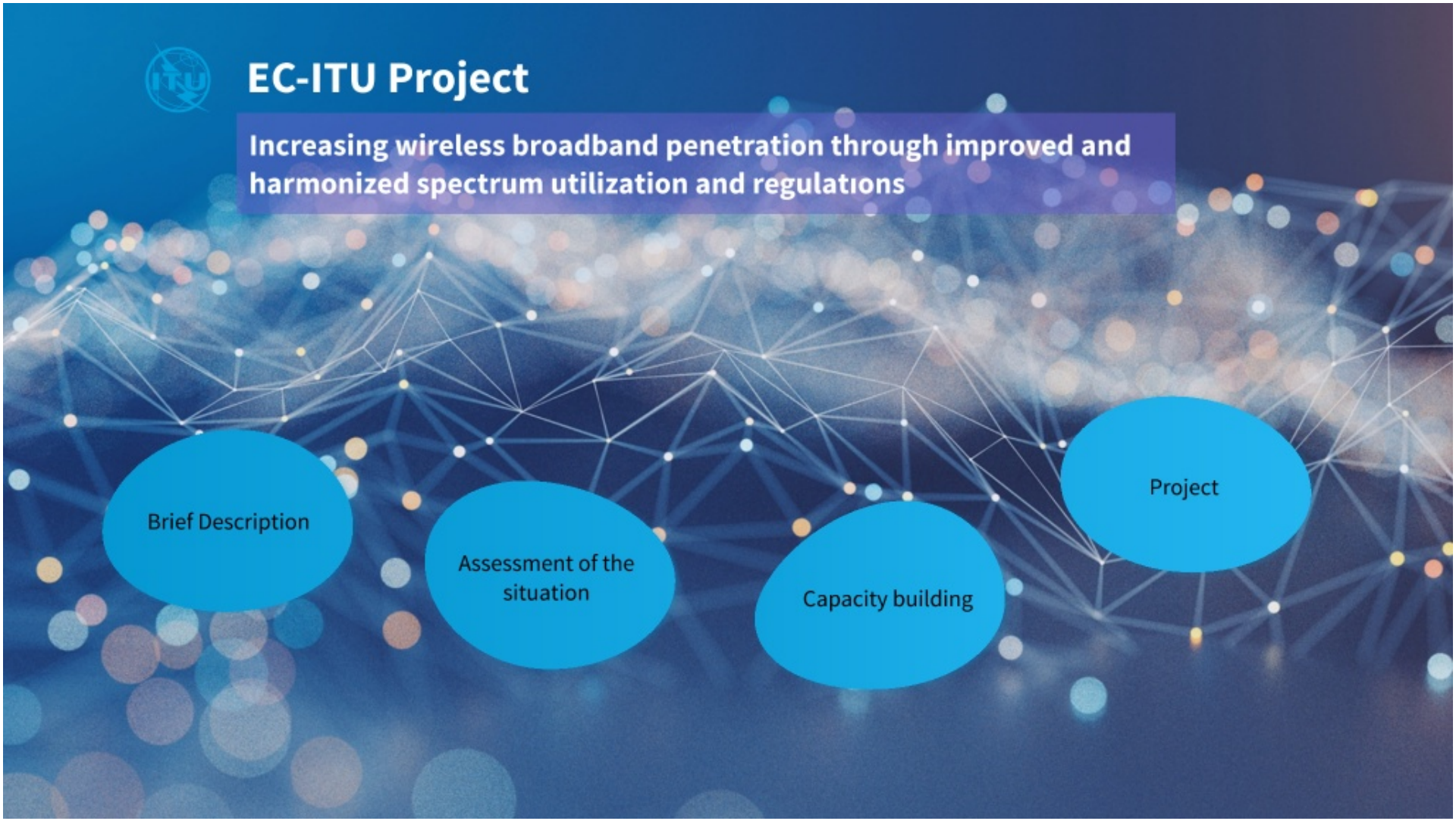
The analysis will determine areas of commonalities and differences and allow the development of roadmaps for regional harmonization identifying

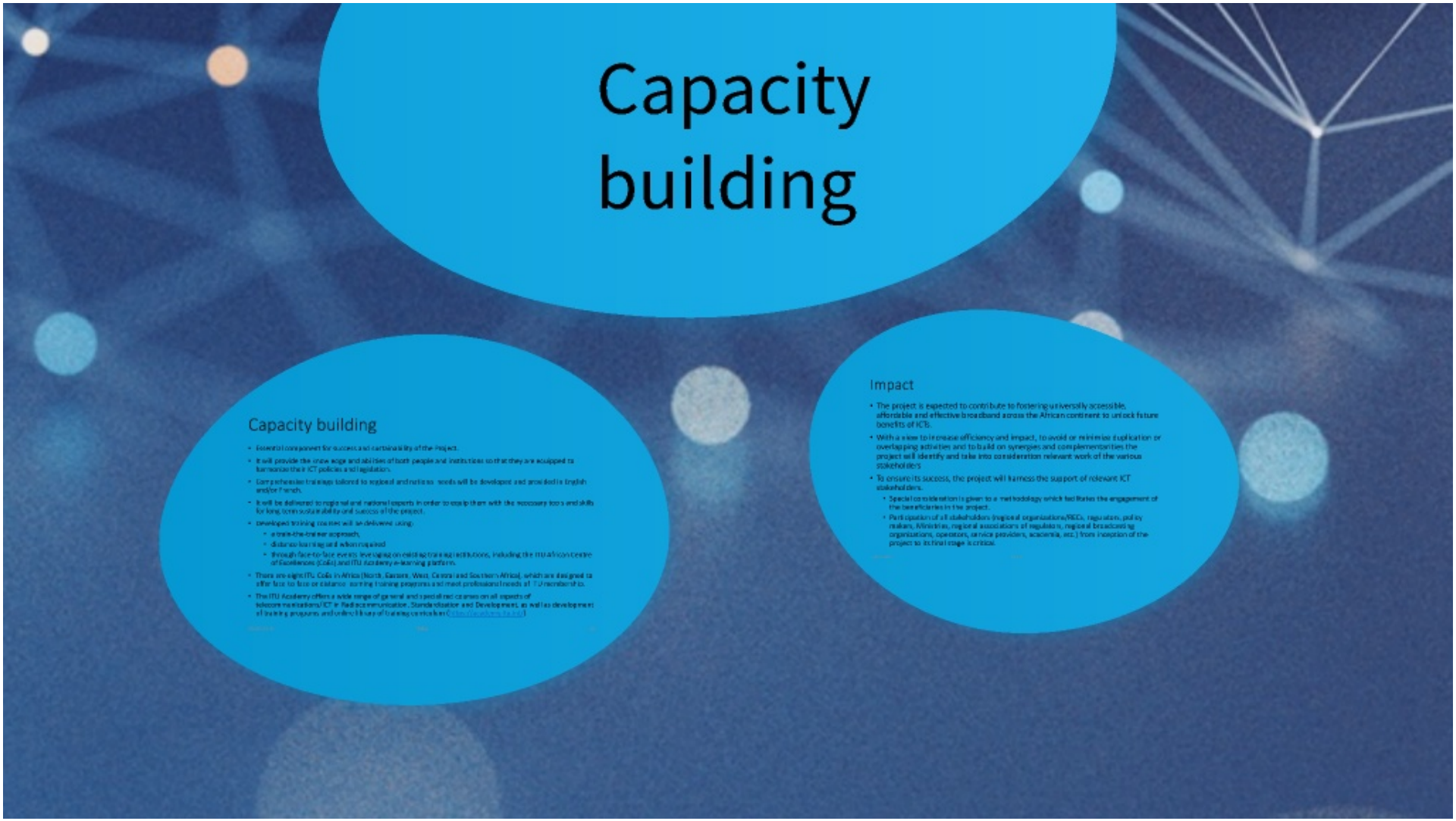
(i) the areas which could be addressed immediately,

(ii) the areas which could be harmonized with some modification of national processes and

(iii) the areas for future harmonization which would require significant preparatory work.

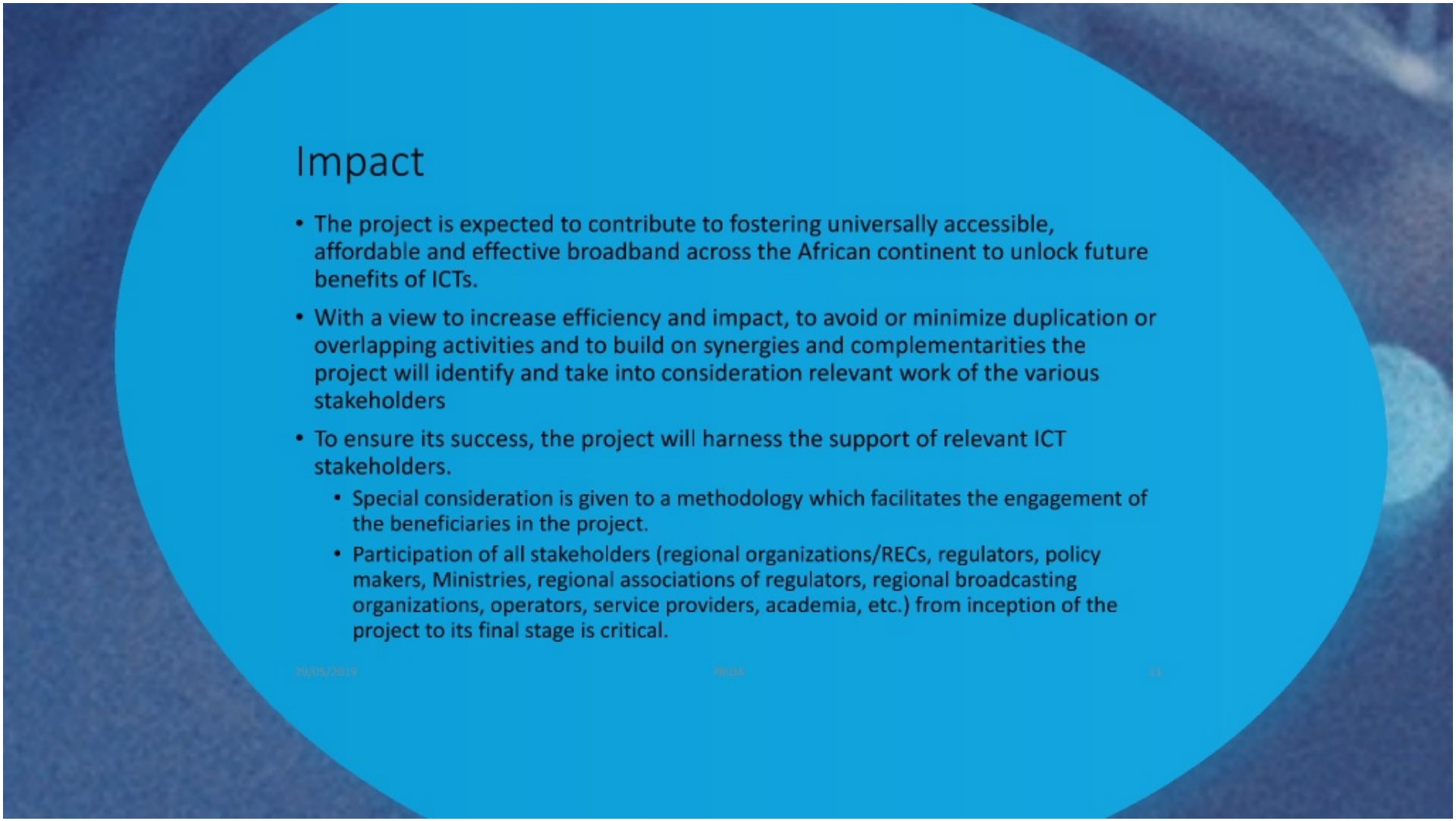
The analysis will address the current legislative and regulatory framework and usage of spectrum as of today and in the foreseeable future as well as the fiber deployment for backhaul services.

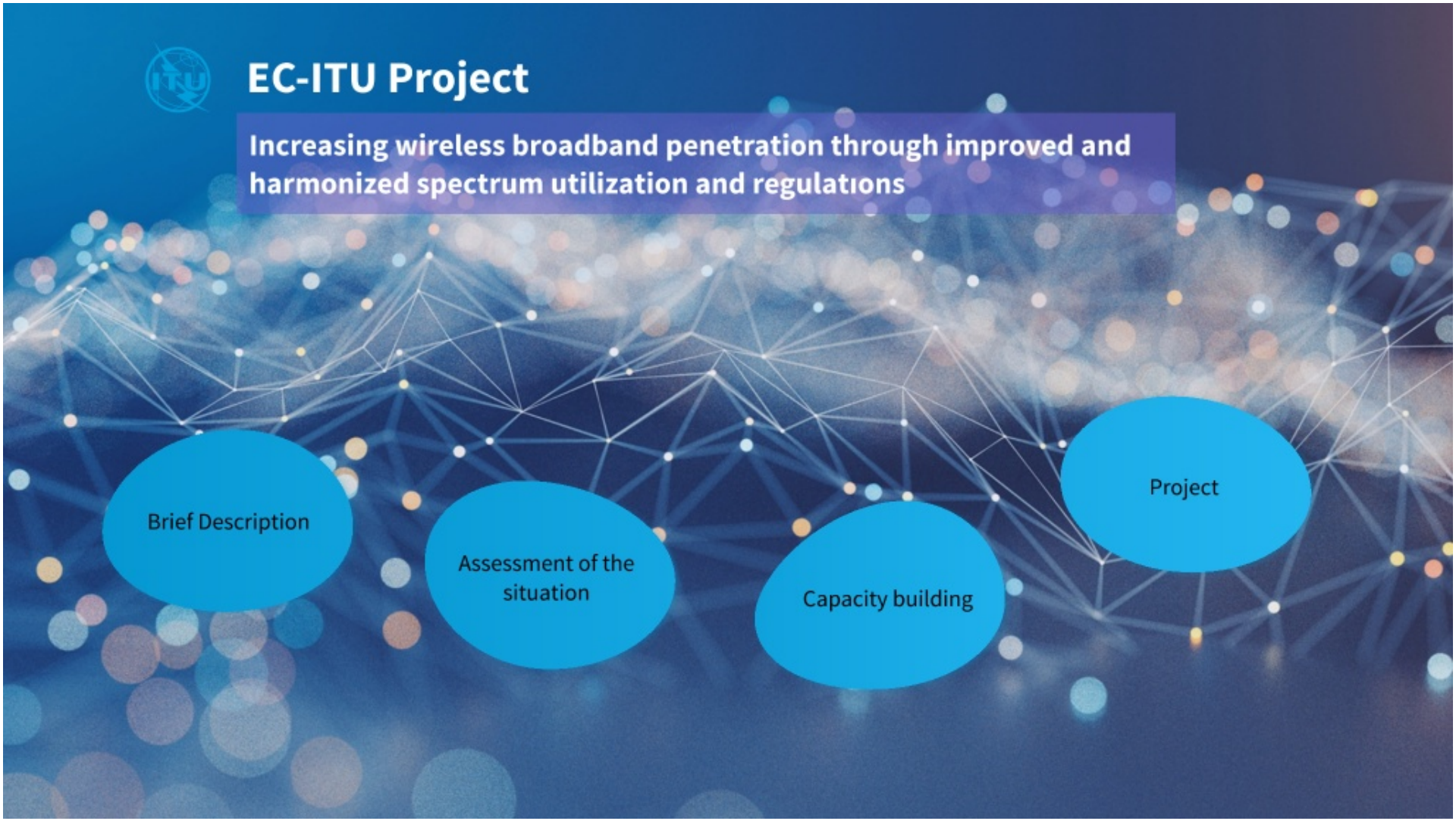

EC-ITU Project
Increasing wireless broadband penetration through improved and harmonized spectrum utilization and regulations
Brief Description
Assessment of the situation
Capacity building
Project

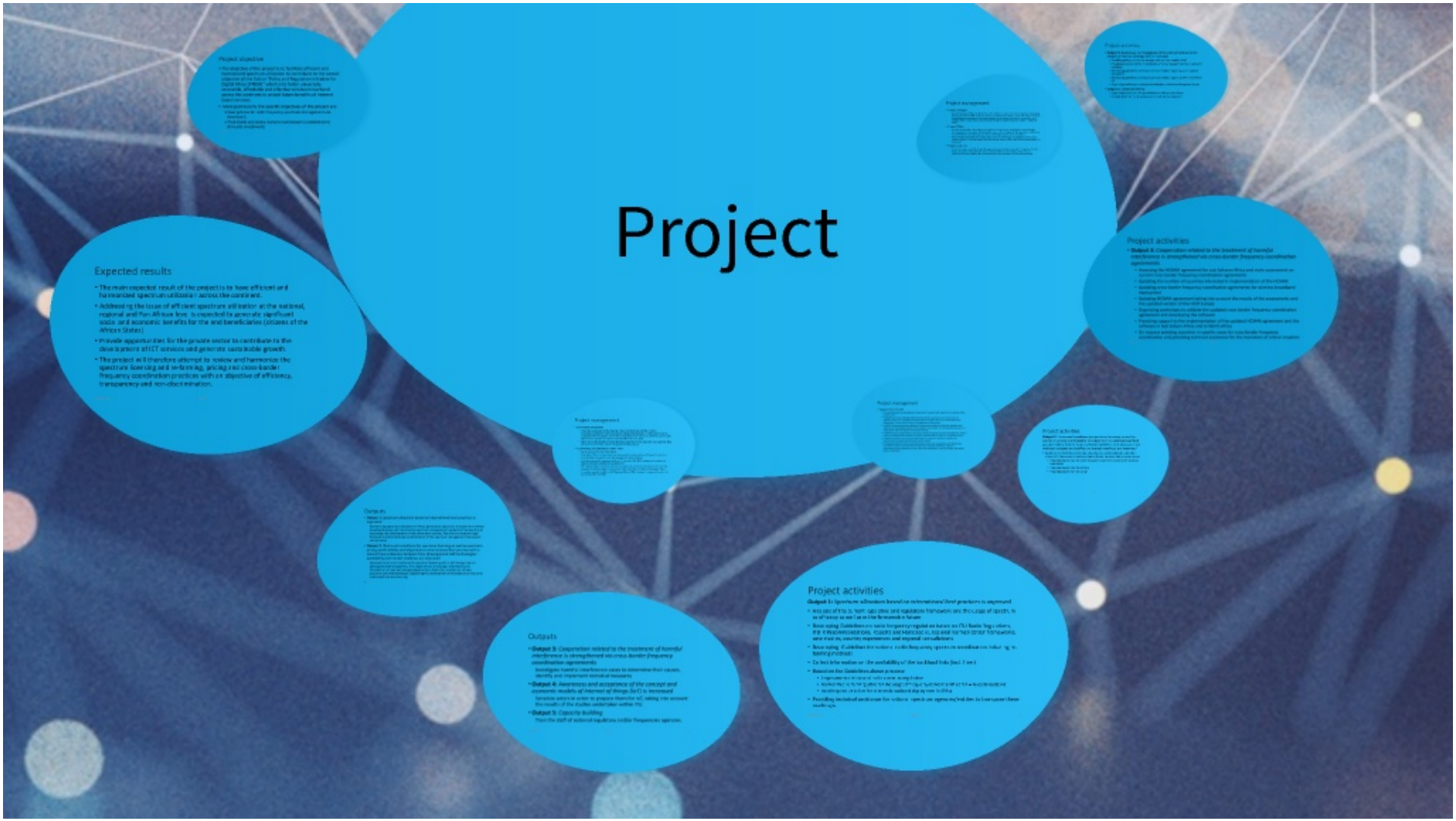

Capacity building
Capacity building
• Essential component for success and sustainability of the Project.
• It will provide the knowledge and abilities of both people and institutions so that they are equipped to harmonize their ICT policies and legislation.
• Comprehensive trainings tailored to regional and national needs will be developed and provided in English and/or French.
• It will be delivered to regional and national experts in order to equip them with the necessary tools and skills for long term sustainability and success of the project.
• Developed training courses will be delivered using:
• a train-the-trainer approach,
• distance learning and when required
• through face-to-face events leveraging on existing training institutions, including the ITU Africa Centre of Excellences (CoEs) and ITU Academy e-learning platform.
• There are eight ITU CoEs in Africa (North, Eastern, West, Central and Southern Africa), which are designed to offer face to face or distance learning training programmes and meet professional needs of ITU members/ICTs.
• The ITU Academy offers a wide range of general and specialized courses on all aspects of telecommunications/ICT in Radiocommunication, Standardization and Development, as well as development of training programs and online library of training curriculum (http://academy.itu.int/)
Impact
• The project is expected to contribute to fostering universally accessible, affordable and effective broadband across the African continent to unlock future benefits of ICTs.
• With a view to increase efficiency and impact, to avoid or minimize duplication or overlapping activities and to build on synergies and complementarities the project will identify and take into consideration relevant work of the various stakeholders
• To ensure its success, the project will harness the support of relevant ICT stakeholders.
• Special consideration is given to a methodology which facilitates the engagement of the beneficiaries in the project.
• Participation of all stakeholders (regional organizations/RECs, regulators, policy makers, Ministries, regional associations of regulators, regional broadcasting organizations, operators, service providers, academia, etc.) from inception of the project to its final stage is critical.

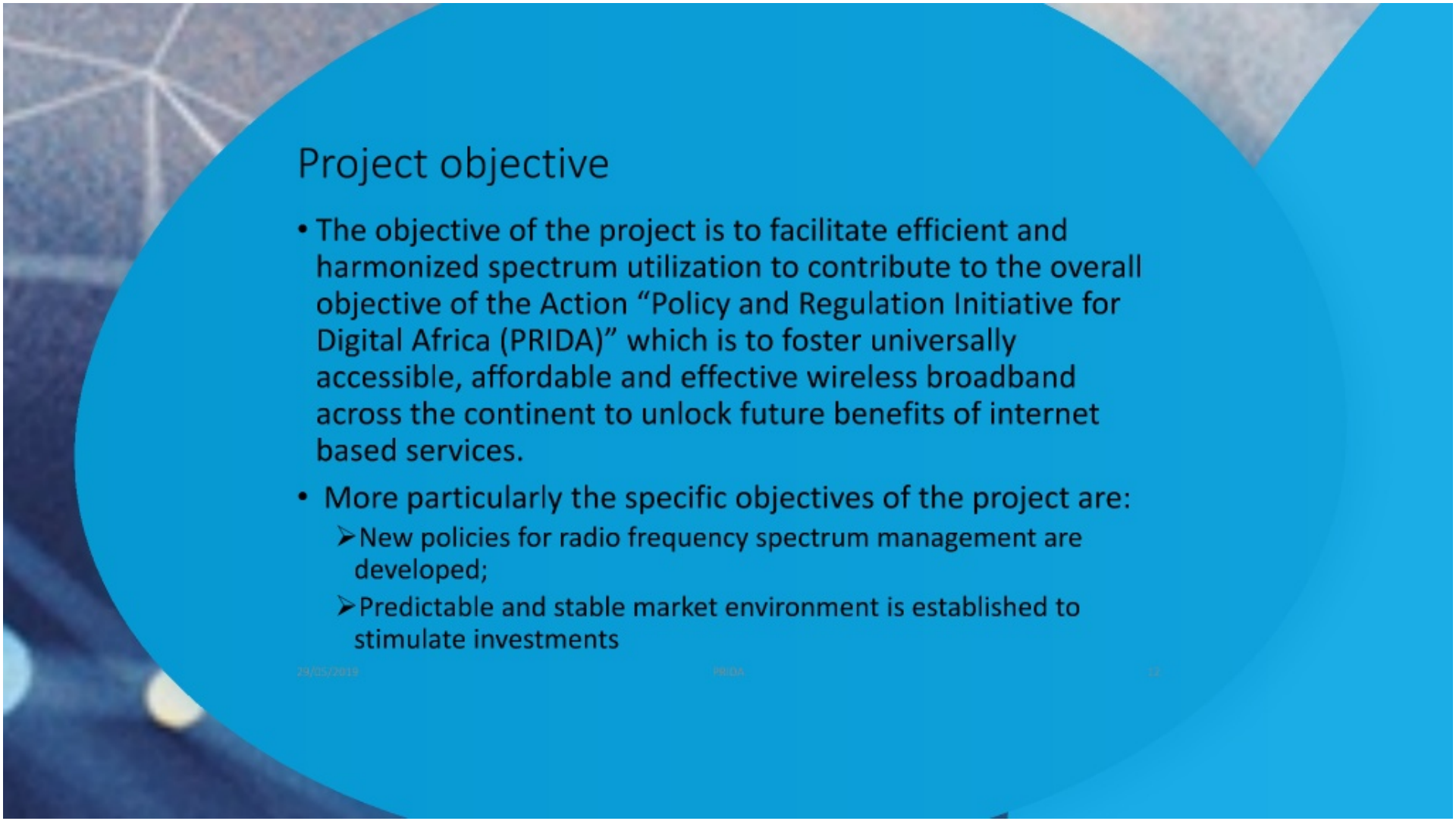
Capacity building

- Essential component for success and sustainability of the Project.
- It will provide the knowledge and abilities of both people and institutions so that they are equipped to harmonize their ICT policies and legislation.
- Comprehensive trainings tailored to regional and national needs will be developed and provided in English and/or French.
- It will be delivered to regional and national experts in order to equip them with the necessary tools and skills for long-term sustainability and success of the project.
- Developed training courses will be delivered using:
  - a train-the-trainer approach,
  - distance learning and when required
  - through face-to-face events leveraging on existing training institutions, including the ITU African Centre of Excellences (CoEs) and ITU Academy e-learning platform.
- There are eight ITU CoEs in Africa (North, Eastern, West, Central and Southern Africa), which are designed to offer face-to-face or distance learning training programs and meet professional needs of ITU membership.
- The ITU Academy offers a wide range of general and specialized courses on all aspects of telecommunications/ICT in Radiocommunication, Standardization and Development, as well as development of training programs and online library of training curriculum (https://academy.itu.int/)


Impact
• The project is expected to contribute to fostering universally accessible, affordable and effective broadband across the African continent to unlock future benefits of ICTs.
• With a view to increase efficiency and impact, to avoid or minimize duplication or overlapping activities and to build on synergies and complementarities the project will identify and take into consideration relevant work of the various stakeholders
• To ensure its success, the project will harness the support of relevant ICT stakeholders.
  • Special consideration is given to a methodology which facilitates the engagement of the beneficiaries in the project.
  • Participation of all stakeholders (regional organizations/RECs, regulators, policy makers, Ministries, regional associations of regulators, regional broadcasting organizations, operators, service providers, academia, etc.) from inception of the project to its final stage is critical.


EC-ITU Project
Increasing wireless broadband penetration through improved and harmonized spectrum utilization and regulations
Brief Description
Assessment of the situation
Capacity building
Project


Project
Expected results
Project activities
Outputs
Project activities


Project objective
• The objective of the project is to facilitate efficient and harmonized spectrum utilization to contribute to the overall objective of the Action "Policy and Regulation Initiative for Digital Africa (PRIDA)" which is to foster universally accessible, affordable and effective wireless broadband across the continent to unlock future benefits of internet based services.
• More particularly the specific objectives of the project are:
➢ New policies for radio frequency spectrum management are developed;
➢ Predictable and stable market environment is established to stimulate investments


Expected results
• The main expected result of the project is to have efficient and harmonized spectrum utilization across the continent.
• Addressing the issue of efficient spectrum utilization at the national, regional and Pan-African level is expected to generate significant social and economic benefits for the end beneficiaries (citizens of the African States)
• Provide opportunities for the private sector to contribute to the development of ICT services and generate sustainable growth.
• The project will therefore attempt to review and harmonize the spectrum licensing and re-farming, pricing and cross-border frequency coordination practices with an objective of efficiency, transparency and non-discrimination.

Outputs

- **Output 1:** *Spectrum allocation based on international best practices is improved*

  Harmonizing spectrum utilization in Africa, particularly spectrum utilization for wireless broadband access, will improve the spectrum management regulatory framework and encourage the development of the information society. The aim is to improve legal framework and institutional establishment of the spectrum management framework and practices.

- **Output 2:** *Terms and conditions for spectrum licensing as well as spectrum pricing predictability and alignment on international best practice with a view to have coherence between time of assignment with technologies availability and market readiness are improved*

  Improved terms and conditions for spectrum licensing with a technology neutral philosophy and transparency. The objective is to encourage investments and introduction of new technologies/applications, foster the introduction of new spectrum cost methodologies supporting the development of broadband services and avoid spectrum warehousing.

Outputs

- **Output 3:** *Cooperation related to the treatment of harmful interference is strengthened via cross-border frequency coordination agreements*

  Investigate harmful interference cases to determine their causes, identify and implement remedial measures

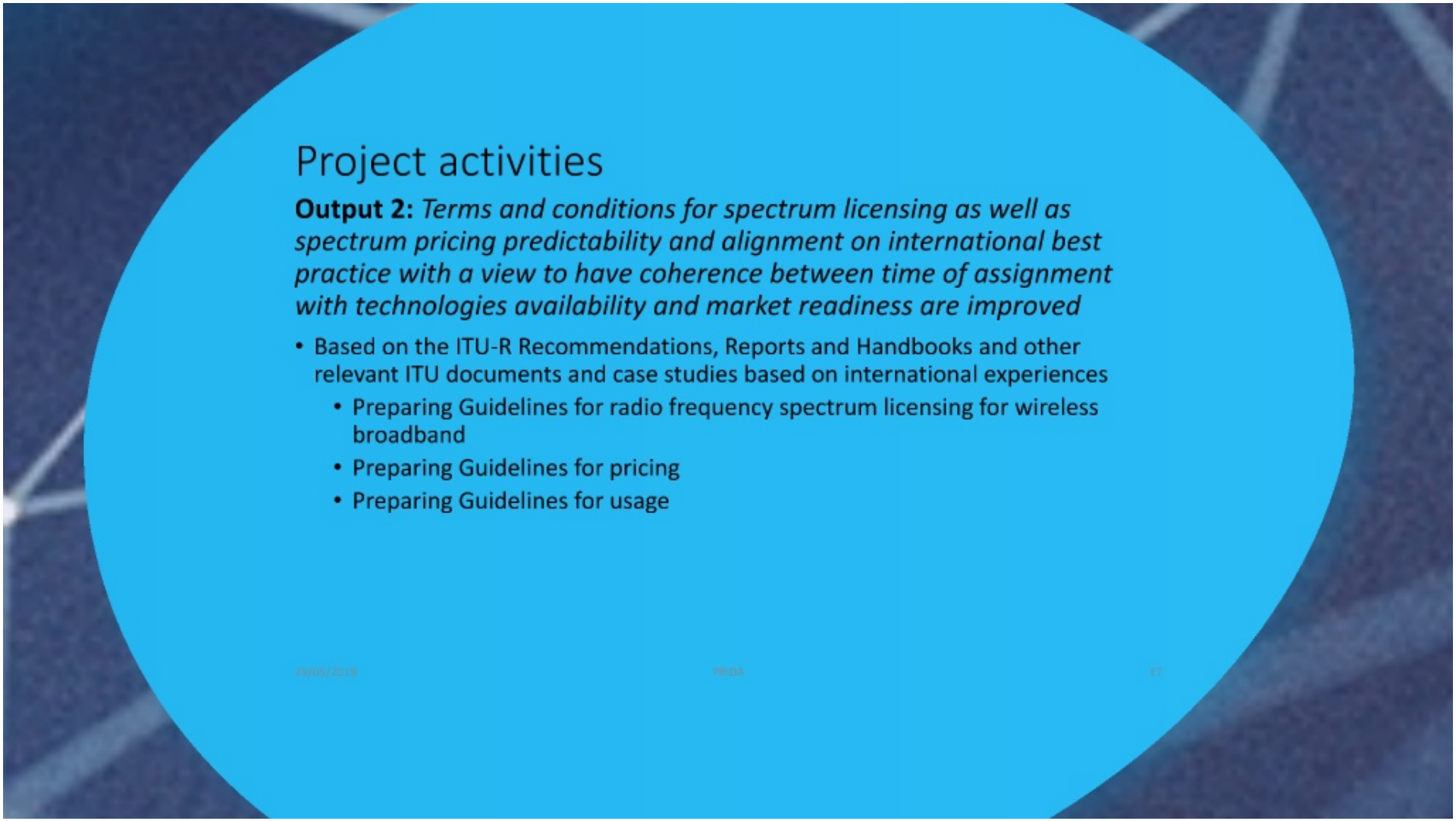
- **Output 4:** *Awareness and acceptance of the concept and economic models of Internet of things (IoT) is increased*

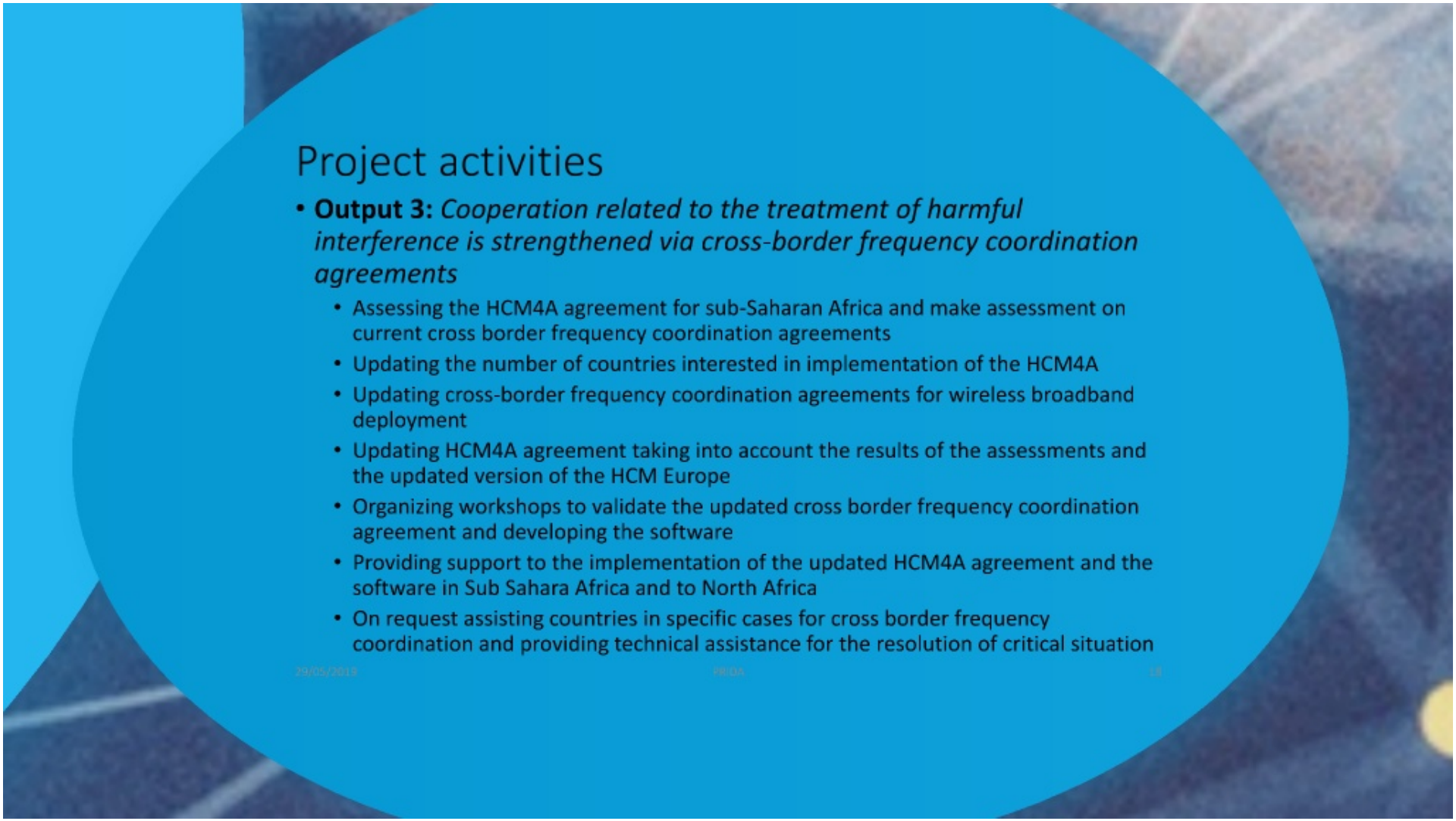
  Sensitize actors in order to prepare them for IoT, taking into account the results of the studies undertaken within ITU.

- **Output 5:** *Capacity building*

  Train the staff of national regulatory and/or frequencies agencies.


Project activities
Output 1: Spectrum allocation based on international best practices is improved
• Analysis of the current legislative and regulatory framework and the usage of spectrum as of today as well as in the foreseeable future
• Developing Guidelines on radio frequency regulation based on ITU Radio Regulations, ITU-R Recommendations, Reports and Handbooks, regional harmonization frameworks, case studies, country experiences and regional consultations
• Developing Guidelines for national radio frequency spectrum coordination including re-farming methods
• Collect information on the availability of the backhaul links (incl. fiber)
• Based on the Guidelines above propose
• improvements of national radio spectrum regulations
• harmonized re-farming plans for the usage of frequency bands identified for wireless broadband
• roadmap and priorities for wireless broadband deployment in Africa
• Providing technical assistance for national spectrum agencies/entities to transpose these roadmaps


Project activities
Output 2: *Terms and conditions for spectrum licensing as well as spectrum pricing predictability and alignment on international best practice with a view to have coherence between time of assignment with technologies availability and market readiness are improved*
• Based on the ITU-R Recommendations, Reports and Handbooks and other relevant ITU documents and case studies based on international experiences
• Preparing Guidelines for radio frequency spectrum licensing for wireless broadband
• Preparing Guidelines for pricing
• Preparing Guidelines for usage


Project activities
• Output 3: Cooperation related to the treatment of harmful interference is strengthened via cross-border frequency coordination agreements
• Assessing the HCM4A agreement for sub-Saharan Africa and make assessment on current cross border frequency coordination agreements
• Updating the number of countries interested in implementation of the HCM4A
• Updating cross-border frequency coordination agreements for wireless broadband deployment
• Updating HCM4A agreement taking into account the results of the assessments and the updated version of the HCM Europe
• Organizing workshops to validate the updated cross border frequency coordination agreement and developing the software
• Providing support to the implementation of the updated HCM4A agreement and the software in Sub Sahara Africa and to North Africa
• On request assisting countries in specific cases for cross border frequency coordination and providing technical assistance for the resolution of critical situation
29/05/2019
PRIDA
18


Project activities
• **Output 4:** *Awareness and acceptance of the concept and economic models of Internet of things (IoT) is increased*
• Providing policy outreach on concept and business models of IoT
• Providing overview on the ITU activities and ensuring participation in relevant meetings
• Developing guidelines and associated case studies regarding type approval regulations
• Developing guidelines and associated case studies regarding EMF and EMC for IoT
• Organising workshops on digital technologies and relevant frequency issues
• **Output 5:** *Capacity building*
• Organizing capacity building workshops on the subjects above
• Provide direct technical assistance to countries (on demand)

Project management

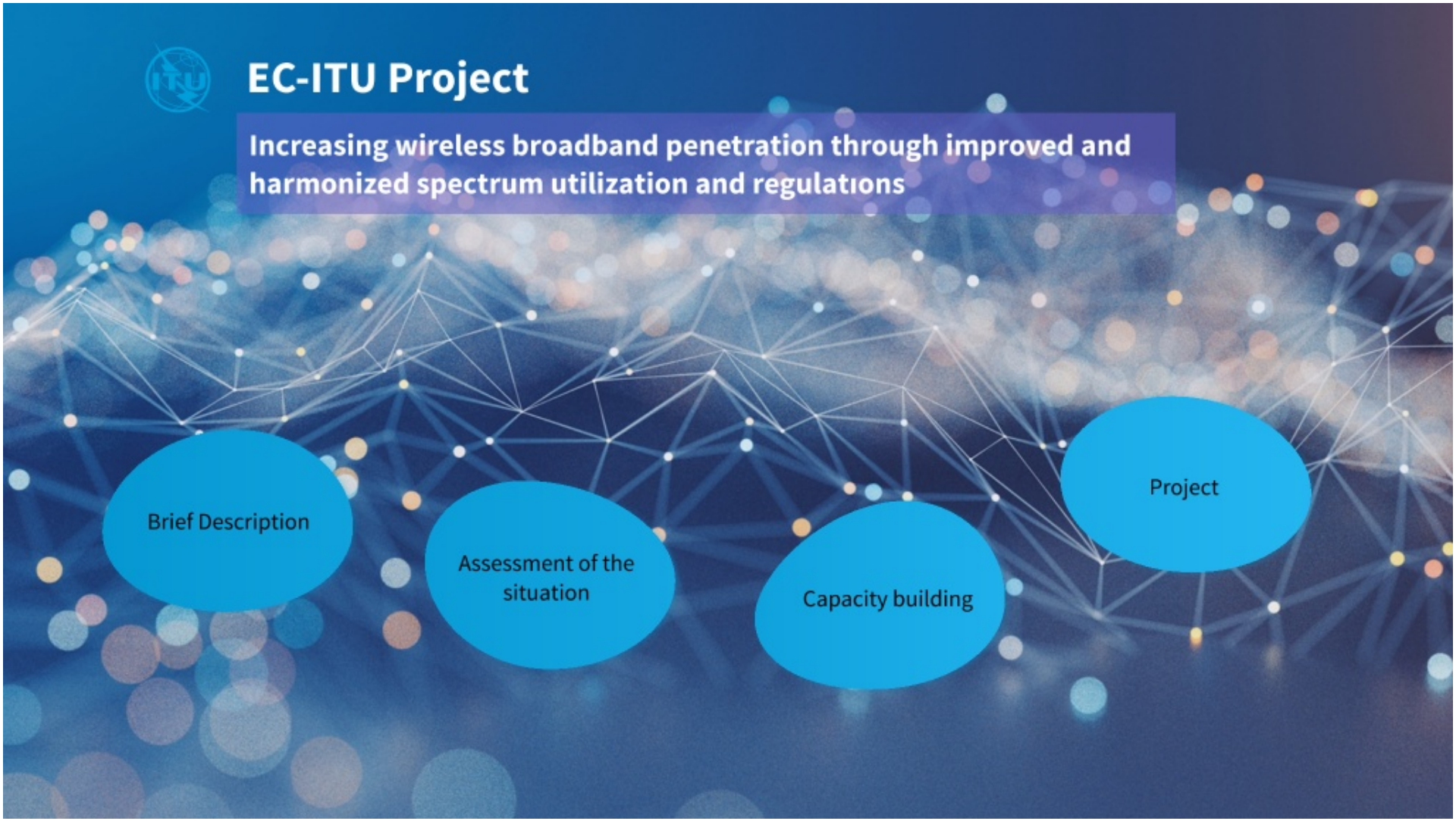
- Project manager
  - A project manager (PM) at the professional level will be recruited by ITU for the purpose of managing the project. The PM will be assisted by a Project assistant (administrative level staff). They will be fully dedicated to the management and implementation of the project and both will be based in the ITU Regional office in Addis Ababa and will be administratively supervised by the Regional Director for Africa.
- Project Officer
  - A project officer (PO) at the professional level will be recruited for the purpose of supporting the implementation of the project. The PO will be based in the ITU Regional office in Cairo and will report to the PM while administratively supervised by the Regional Director for Arab States.
  - the PO will be responsible for the coordination of the implementation and reporting of the project activities mainly in the North African countries and will assist the PM in the overall implementation of the project
- Project assistant
  - Under the supervision of the Project Manager and in close collaboration with ITU regional office for Africa, the project officer and BDT concerned Units in Geneva the Assistant will carry out all administrative tasks related to the implementation of the operational activities of the project.

Project management

- Support from ITU staff
  - ITU Human Resources Management Department: support with regard to recruitment of the project team.
  - ITU/BDT Financial and Budget Administration Division: guidance on ITU financial and administrative rules, regulations and procedures in liaison with ITU Financial Resources Department. Ensure sound financial management of the project.
  - ITU/BDT Telecommunications Network & Spectrum Management Division: guidance and expertise on the implementation of the project's deliverables, including quality assurance, in close liaison with ITU Radiocommunication Bureau.
  - ITU/BDT Project Support Division: guidance and backstopping in project management related issues, monitoring and evaluation of project implementation, advice on corrective actions.
  - ITU/BDT Promotion and Communication Division: support in project's visibility and communication towards beneficiaries and the public.
  - ITU Regional offices for Africa and Arab States: liaison and coordination with beneficiary countries in order to maintain direct contact with national authorities, regional telecommunication organizations and other key stakeholders as well as support the project team as necessary.

Project management

- Short term consultants
  - Under the supervision of the PM and in close collaboration with the ITU/BDT Telecommunication Network & Spectrum Management Division, the deliverables will be produced with the support of short term consultants who will be recruited for specific tasks when and as required during the implementation of the project.
  - Their role will be limited to provide technical expertise on the topics they are assigned. They will have no role in the overall management of the project.
- Implementation (Technical) Committee
  - Will be set up at the start of the project.
  - It will advise ITU on technical matters pertaining to the implementation of the project's activities.
  - It will facilitate the political buy-in and synergies with other initiatives.
  - It will be composed of representatives from ITU (as chair), AUC, RECs and regional association of regulators and other stakeholders as appropriate.
  - The Implementation Committee will meet on a regular basis to be determined at its first meeting.
  - However, the decisions (taken by consensus) of the Committee will solely be of advisory nature.
  - In coordination with the AFR and ARB Regional offices of ITU, the project manager will assume the secretariat of the committee


EC-ITU Project
Increasing wireless broadband penetration through improved and harmonized spectrum utilization and regulations
Brief Description
Assessment of the situation
Capacity building
Project