

Legal, institutional and policy instruments to facilitate implementation of nuclear power projects in Poland, including SMRs



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Overview of the NPP investment projects in Poland

Large-scale NPPs projects

Investor (PL): Polskie Elektrownie Jądrowe

Technology provider: Westinghouse

Reactor Technology: AP1000

Site: Lubiatowo-Kopalino / (3x1000 MWe)

Government's Approval of the project (Decision-In-Principle):
July 2023



Investor (PL): PGE PAK Energia Jądrowa S.A.

Technology provider: KEPCO

Reactor Technology: APR1400

Site: Konin

Government's Approval of the project (Decision-In-Principle):
November 2023



SMRs projects

Investor (PL): KGHM Polska Miedź

Technology provider: NuScale

Reactor Technology: VOYGR / other



Government's Approval of the project
(Decision-In-Principle): July 2023

Investor (PL): Orlen Synthos Green Energy

Technology provider: GE-Hitachi

Reactor Technology: BWRX-300

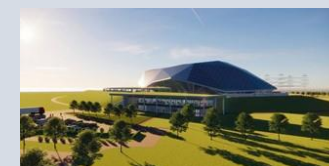


Government's Approval of the project
(Decision-In-Principle): December 2023

Investor (PL): ŚGP Industria

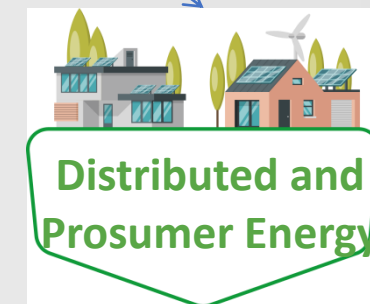
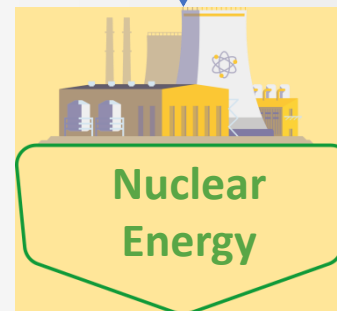
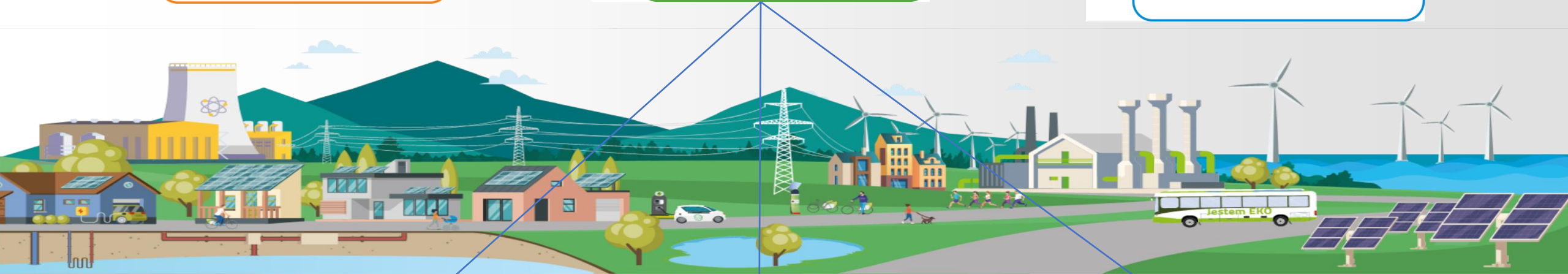
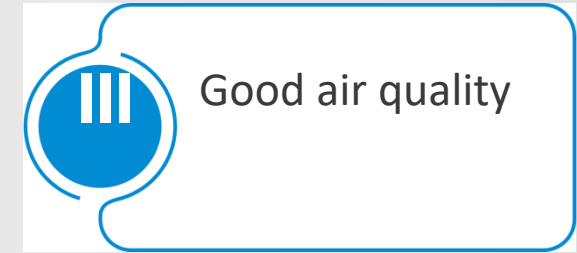
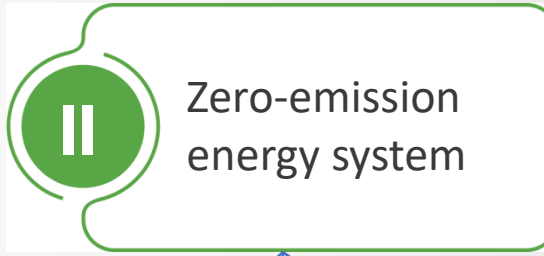
Technology provider: Rolls-Royce

Reactor Technology: Rolls-Royce SMR

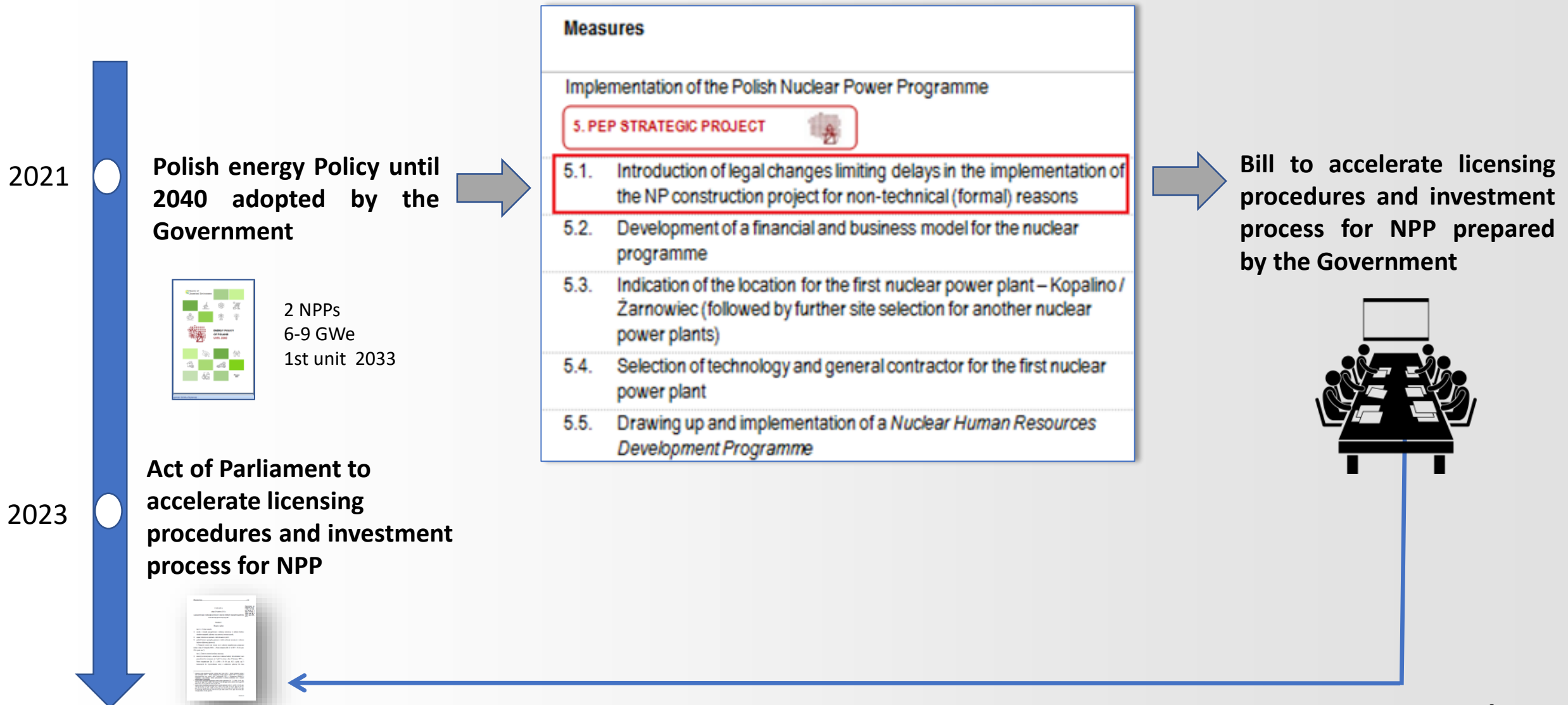


Government's Approval of the project
(Decision-In-Principle): April 2024

Priorities of Polish energy policy until 2040



Legislation to accelerate deployment of NPPs

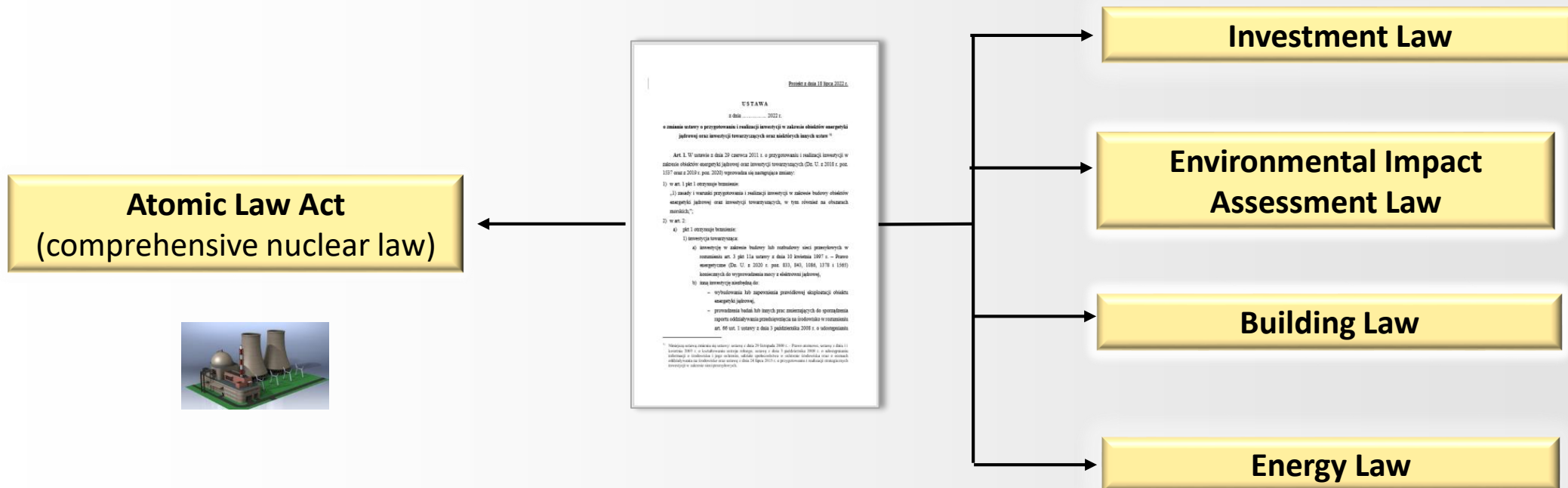


Main objectives of the legislation

- ✓ **to streamline licensing procedures** at each stage of the NPP licensing process (including siting, construction, commissioning etc.)
- ✓ **to reduce NPP investment risks**, especially by putting the state approval of the NPP project at the beginning of the licensing process
- ✓ **to facilitate various types of investor's activities** necessary to construct NPP (e.g. site survey, pre-construction works, energy lines)
- ✓ **to enhance the position and autonomy of nuclear regulatory body**

Scope of the legislation

- Complex approach to the transformation of the licensing framework
- **To streamline investment process for NPPs the legislation provides for number of changes to various national laws applicable to NPP investment project:**



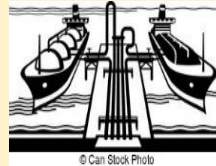
Developing the legislation

- Particular attention was given to the analysis of:

1. Lessons learnt from the implementation of NPP projects in Poland and in other EU countries

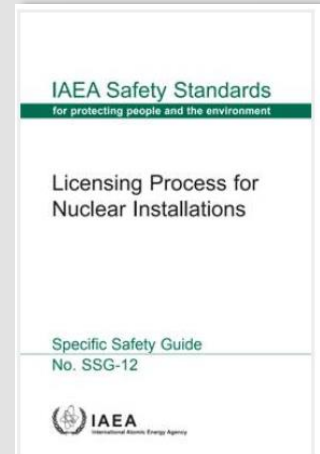
2. Lessons learnt from the implementation of other than nuclear large-scale investment projects:

- ☐ LNG Terminals
- ☐ Strategic Energy Lines
- ☐ Polish Central Airport (CPK)



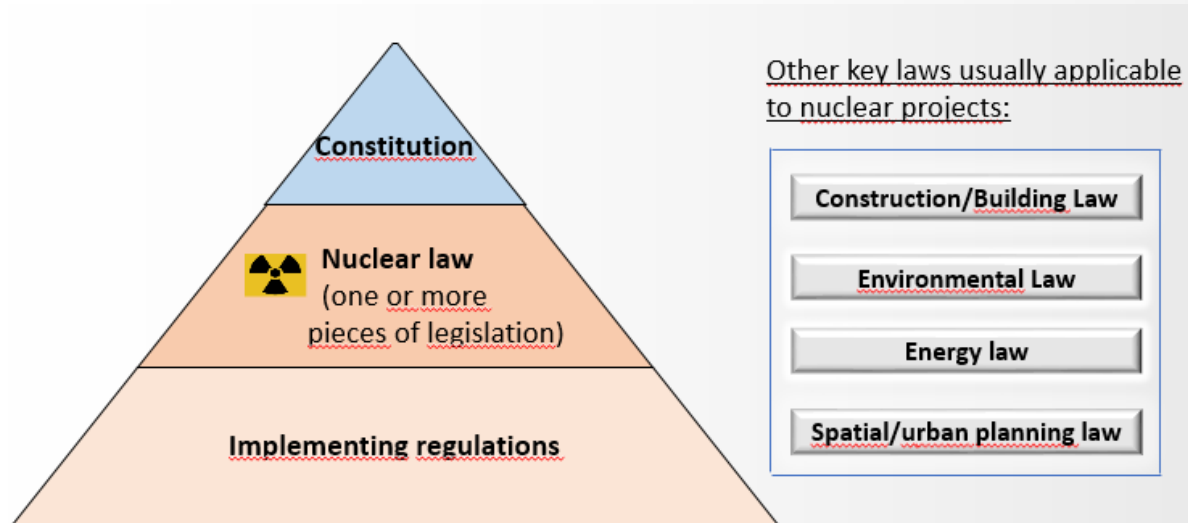
3. Recommendations of IAEA review missions

4. Good practices of other countries implementing nuclear power programmes

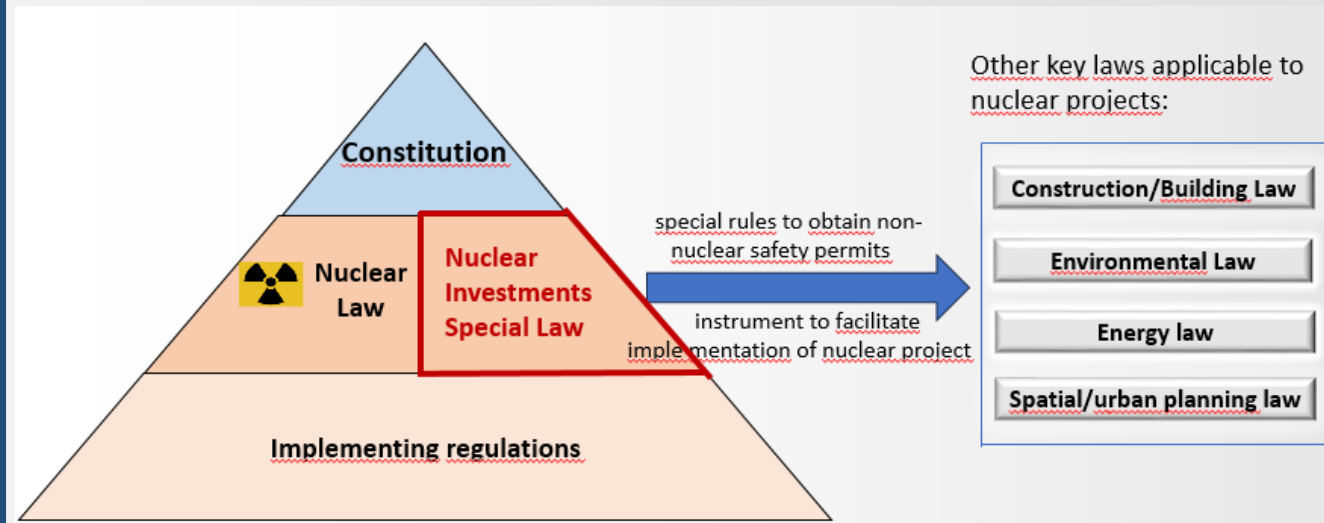


Comparison of nuclear legal framework in Poland and in most other countries

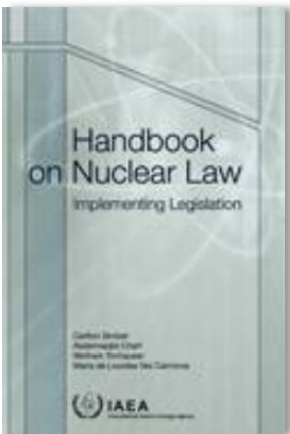
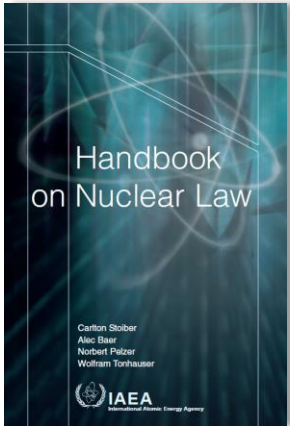
Hierarchy of legal instruments in most countries



Hierarchy of legal instruments in Poland



Nuclear legal framework in Poland



Nuclear Law (Atomic Law Act)

- ☐ **Relevant body: President of the National Atomic Energy Agency (PAA)**
- ☐ **Scope of the act:**
 - Structure, competences of the regulatory body
 - Duties of nuclear operators
 - Nuclear licensing
 - Enforcement, inspection
 - General requirements on:
 - Nuclear safety and security
 - Nuclear liability
 - Radioactive waste management
 - Emergency preparedness and response
 - Non-proliferation and safeguards etc.



Detailed requirements in implementing regulations

Nuclear Investments Special Law*

- ☐ **Relevant body: Minister of Climate and Environment (NEPIO)**
- ☐ **Scope of the act:**
 - principles and conditions for preparation and carrying out investments with regard to construction of nuclear power facilities and accompanying investments
 - rules to issue Decision-in-principle
 - arrangements to streamline non-nuclear safety licensing procedures

Structure of the Atomic Law Act

| | | | |
|-------------------|---|---------------------|---|
| Chapter 1. | General provisions | Chapter 10. | Assessment of the national radiation situation |
| Chapter 2. | Licences regarding nuclear safety and radiation protection | Chapter 11. | Management of radiation emergencies and existing exposure situations |
| Chapter 3. | Nuclear safety and radiation protection requirements, and health protection of the workers | Chapter 12. | Civil liability for nuclear damage |
| Chapter 4. | Nuclear facilities | Chapter 12a. | Activities pertinent to the development of nuclear power |
| Chapter 5. | Nuclear materials and technology | Chapter 13. | Nuclear Regulatory Authority |
| Chapter 6. | Radiation sources | Chapter 14. | State-owned public utility company “Radioactive Waste Management Plant” |
| Chapter 7. | Radioactive waste and spent nuclear fuel | Chapter 15. | Administratives and penal fines |
| Chapter 8. | Transport of nuclear materials, radiation sources, radioactive waste and spent nuclear fuel | Chapter 16. | Transitional, adaptive and final provisions |
| Chapter 9. | Oversight and control of compliance with nuclear safety and radiation protection conditions | | |

Structure of the Nuclear Investment Special Law

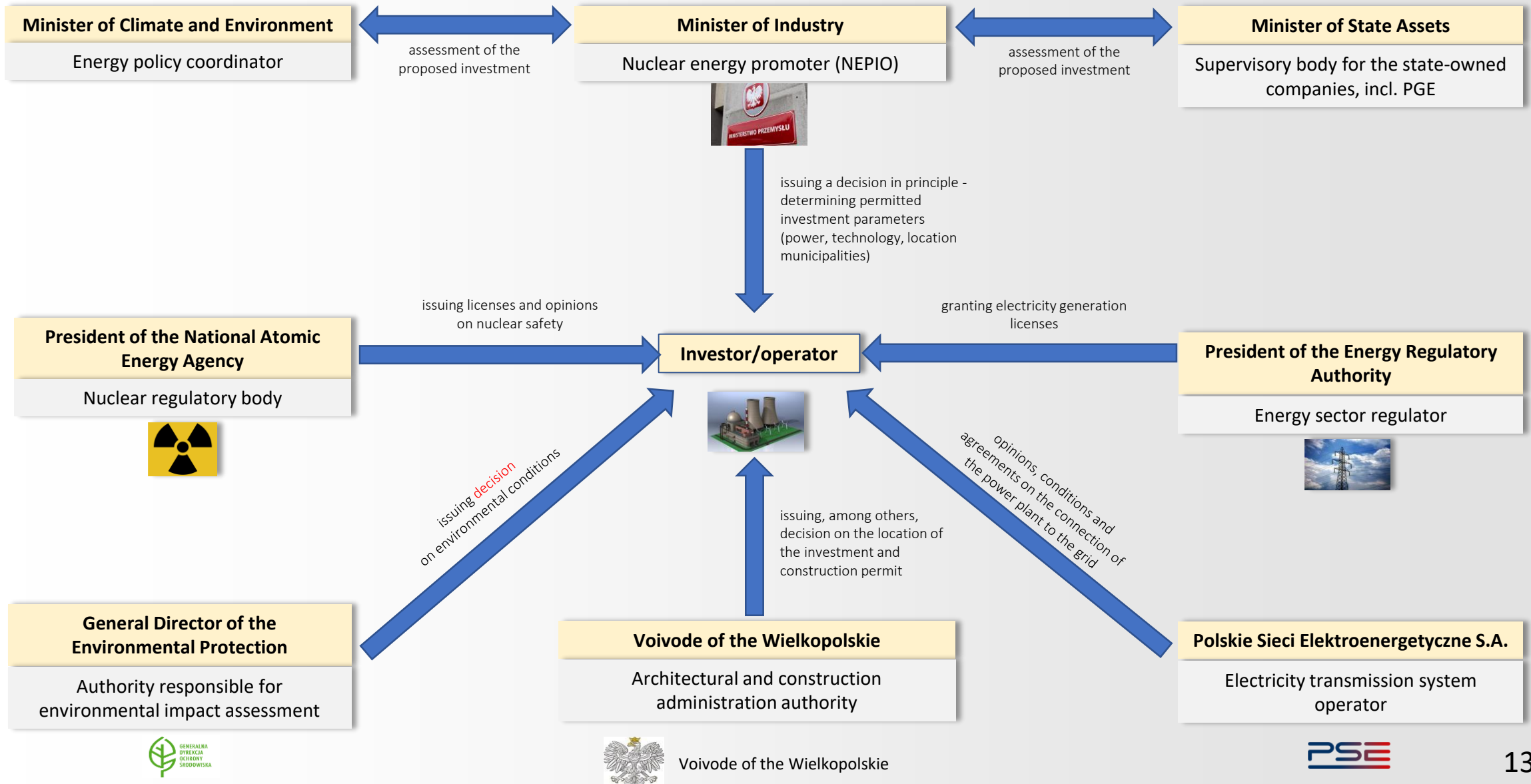
| | |
|--------------------|---|
| Chapter 1. | General provisions |
| Chapter 1a. | Decision-In-Principle |
| Chapter 2. | Preparation of the investment with regard to construction of NPP |
| Chapter 3. | <i>repealed</i> |
| Chapter 4. | Acquiring legal title to real estate and carrying out the investment with regard to construction of a nuclear power facility |
| Chapter 5. | Administrative proceedings for carrying out the investment with regard to construction of a nuclear power facility |
| Chapter 6. | Awarding contracts for carrying out the investment with regard to construction of a nuclear power facility |
| Chapter 7. | Tasks of the investor to ensure the safety of carrying out the investment with regard to construction of a nuclear power facility |
| Chapter 8. | Benefit sharing among municipalities in relation to the construction of nuclear power plants |
| Chapter 9. | Instruments to facilitate construction of accompanying investments |



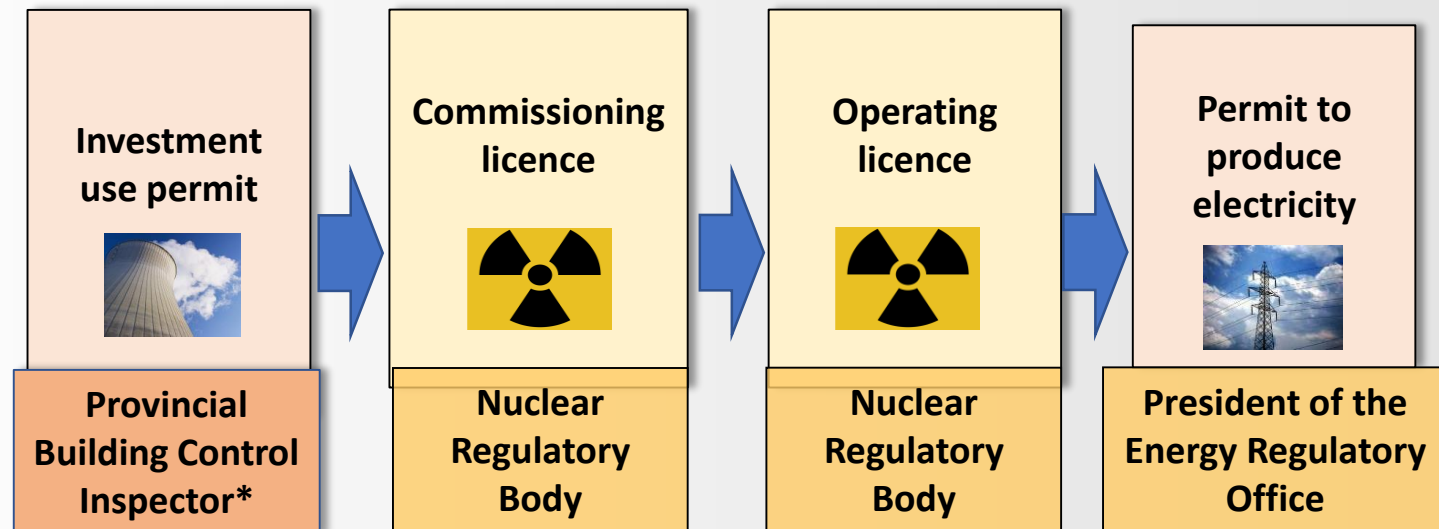
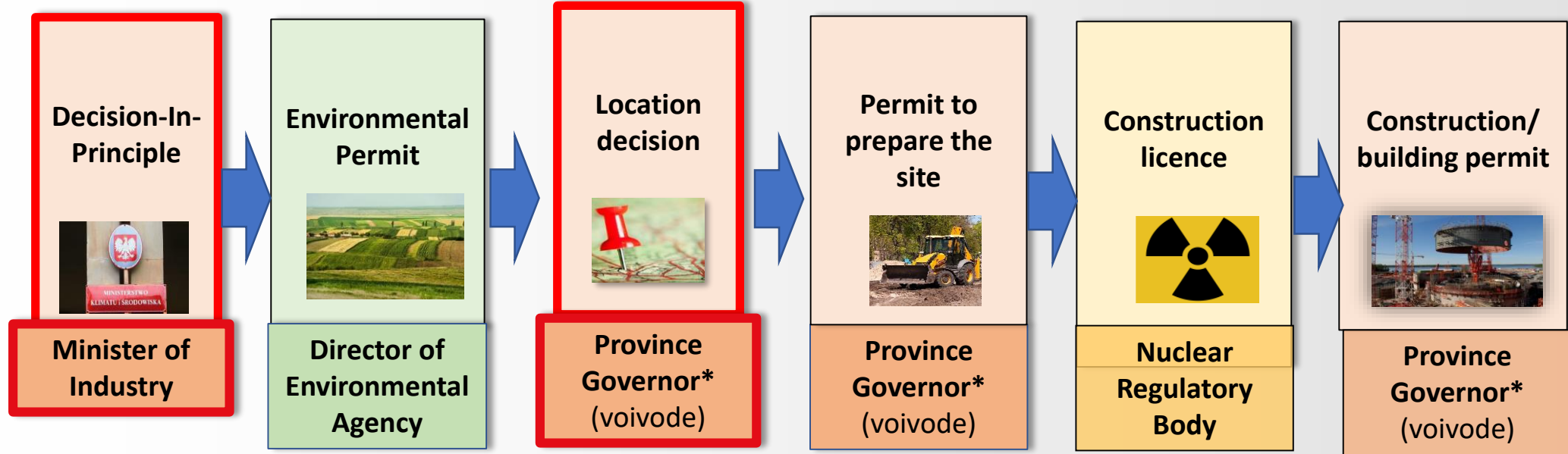


New licensing and permitting process for nuclear power plants

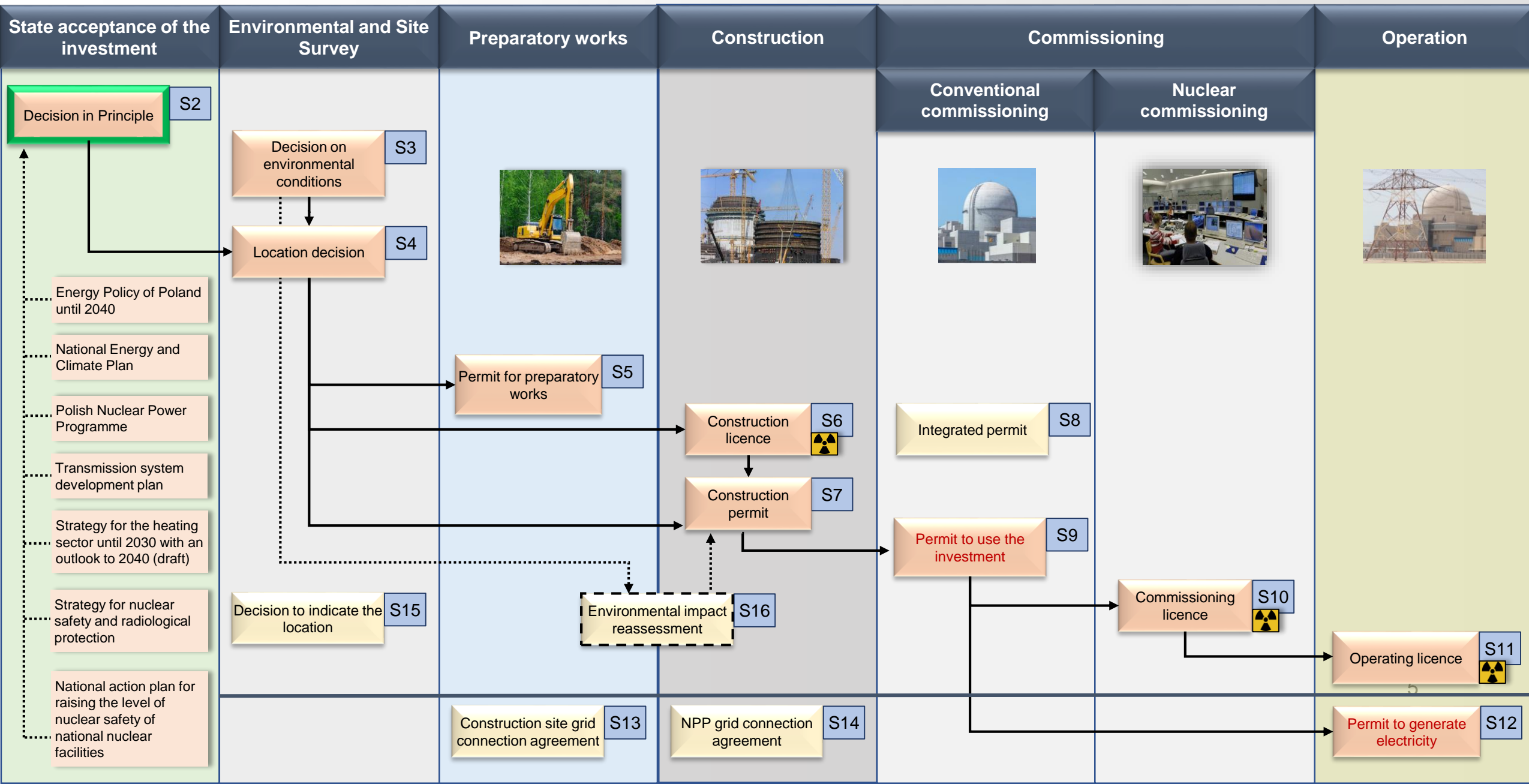
Institutional framework for the licensing and permitting process




Milestones of the new licensing and permitting process for NPPs



* Representative of the Government at the regional level (appointed by the Prime Minister)





Key arrangements to streamline licensing and investment processes for NPPs

Key arrangements to streamline investment process for NPPs



- ❑ developing **prelicensing instruments**
- ❑ new regulations on the **decision-in-principle** (State's approval of NPP investment project)
- ❑ **opening licensing process for all developers** - removing existing requirements allowing construction of NPPs only by (large) energy utilities



Proceeding 1.

Proceeding 2.

- ❑ **enhancing coordination of activities** of various State authorities involved in implementation of NPP project
- ❑ **introducing possibility of parallel administrative proceedings to issue various licences/permits:**
 - environmental permit and siting permit
 - building permit (province governor) and construction licence ☢



- ❑ **facilitation of conducting site survey and EIA:**
 - cost-free and priority access to data (e.g. geological, meteorological) needed for environmental report owned by State authorities
 - administrative fast-track to install infrastructure needed for site survey



- ❑ **facilitation of preparation of the NPP site prior construction license is issued**

- ❑ **clarification of construction works requiring/not requiring construction licence** ☢



- ❑ **administrative „fast track” to construct auxiliary infrastructure** related to NPP project
 - e.g. energy lines, roads or railways to NPP, installations to produce hydrogen



Key precicensing instruments

Article 39b. 1. Before applying for a licence, the investor may apply to the Agency's President for a **general assessment of the planned organizational and technical solutions and draft versions of documents to be submitted along with the application for a licence.**

- Scope is defined by applicant
- **Opinion is not mandatory**
- **It is not a Generic Design Assessment it is a general opinion.**

Benefits of general opinion:

- the regulatory assessment process becomes more effective and less time consuming
- possibilities to identify legal barriers or design barriers at an early stage of licensing

Article 36a. 1. Before applying for a nuclear facility construction licence, the investor may apply to the Agency's President for a **preliminary assessment of the site of a future nuclear facility.**

- Scope is defined by applicant
- **Opinion is not mandatory**



Decison-In-Principle

Content of the application



- ✓ proposed area/areas (municipalities) for NPP site
- ✓ proposed reactor technology and maximum power capacity
- ✓ licence applicant's ownership structure
- ✓ financing plan

Review of the application



The minister in charge of energy resources shall issue the Decision-In-Principle or refuse to issue the fundamental decision within 90 days from the date of receipt of the application for the Decision-In-Principle, taking into account the **public interest**, in particular:

- 1) the **objectives of state policy, including energy policy**, taking into account the current and projected national demand **for electricity or heat**,
- 2) the impact of the investment for the construction of a nuclear power facility **on the internal security of the state** [opinion of the Internal Security Agency required]

Content of the Decision-In-Principle (DIP)



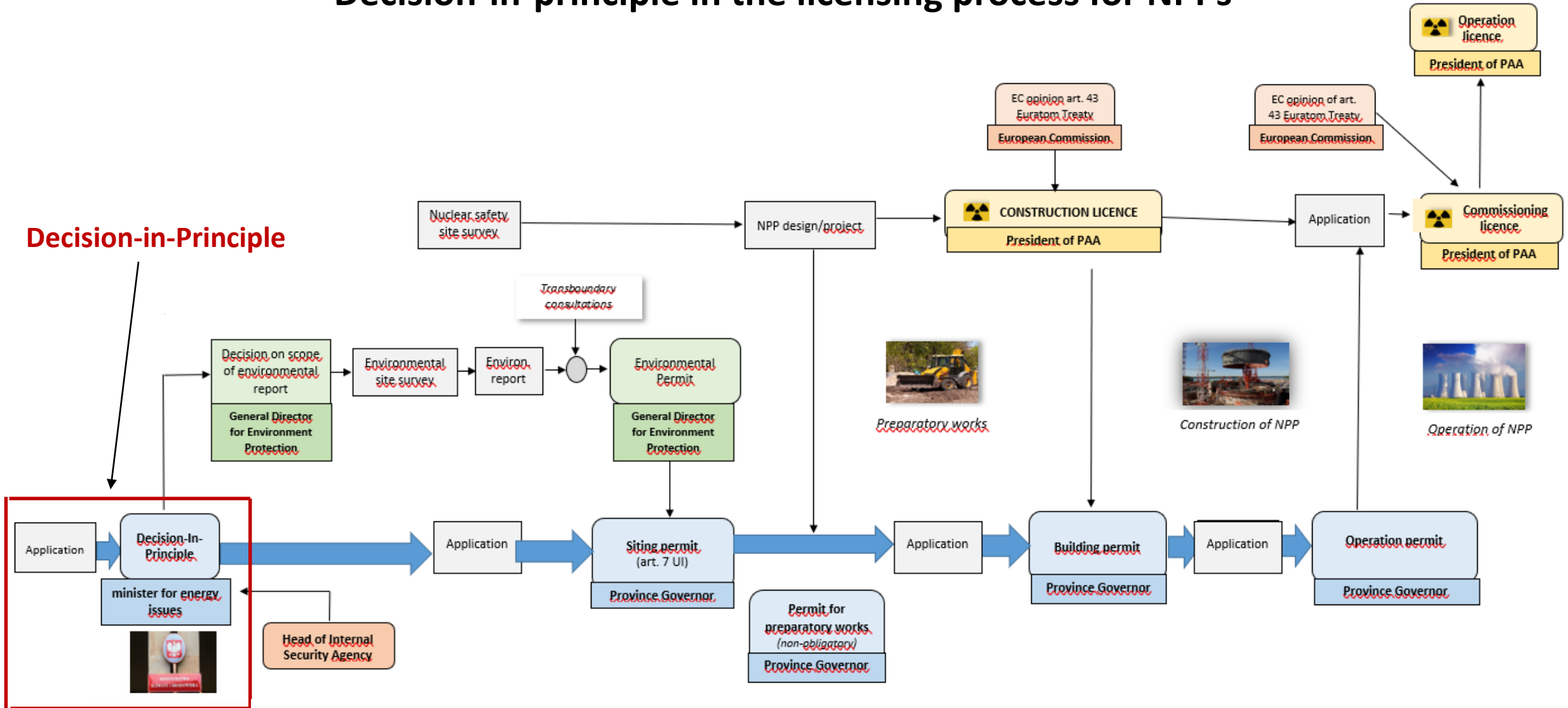
- ✓ permitted area/areas (municipalities) for NPP site
- ✓ permitted reactor technology and maximum power capacity

DIP as a „green light” to go ahead with NPP project and prerequisite to apply for other licences or permits necessary to construct and operate NPP



Decision-in-principle in the licensing process for NPPs

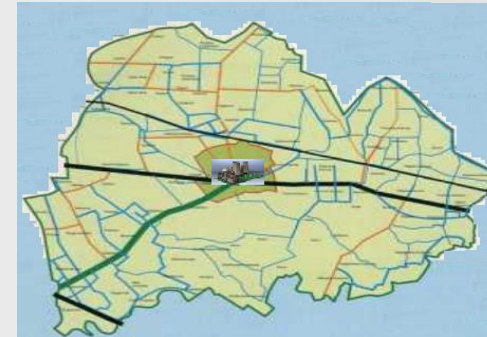
Decision-in-Principle



Decision to determine the NPP investment project site

Main elements of the application for the Decision

- general characteristics of the planned investment
- **determination of the boundaries of the area covered by the application**
- **list of real estate or parts thereof, according to the land and buildings register, on which the investment is planned to be located, with indication of the real estate for which the investor does not hold the legal title**
- indication of the real estate or parts thereof in relation to which the decision shall provoke the following effect



the real estate located in the site demarcation lines of the investment **shall become, by virtue of law, the property of the State Treasury** as of the date on which the decision has become final, **and the compensation shall be awarded.**



Content of the Decision

The decision shall determine and include in particular:


- description of the real estate covered by the investment
- technical conditions for realisation of the investment;
- conditions resulting from the needs of environmental protection and protection of monuments, including those concerning prevention of serious industrial breakdowns;
- fire protection conditions for the investment;
- indication of the real estate in relation to which the decision shall have the following effect

Effects of the Decision


- binding for the competent authorities when they draw up the study on conditions and directions of spatial management and the local spatial management plans.
- the real estate located in the site demarcation lines of the investment shall become, by virtue of law, the property of the State Treasury as of the date on which the decision has become final, and the compensation shall be awarded.



The transfer of the ownership of buildings, other equipment or premises located thereon to the investor shall take place at the request of the investor submitted after obtaining a decision

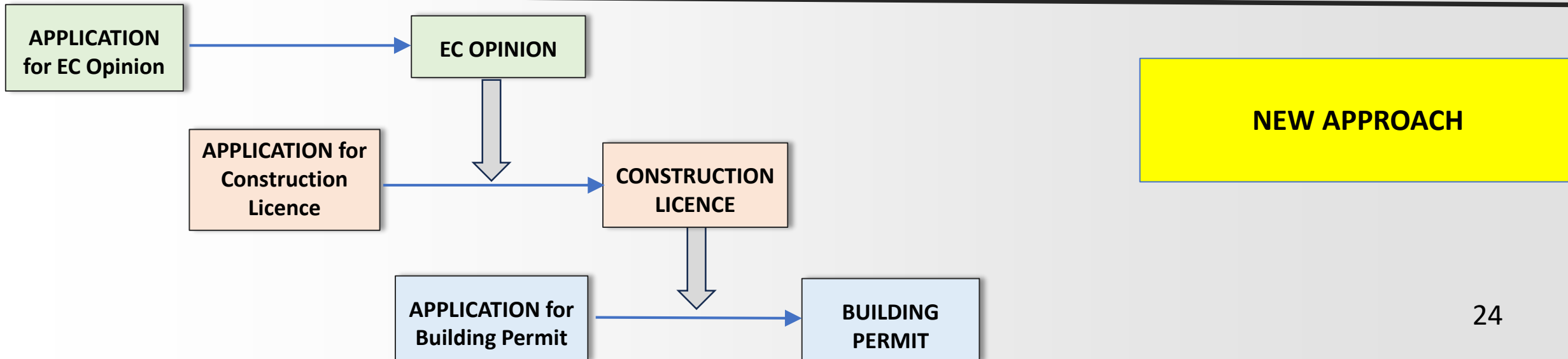
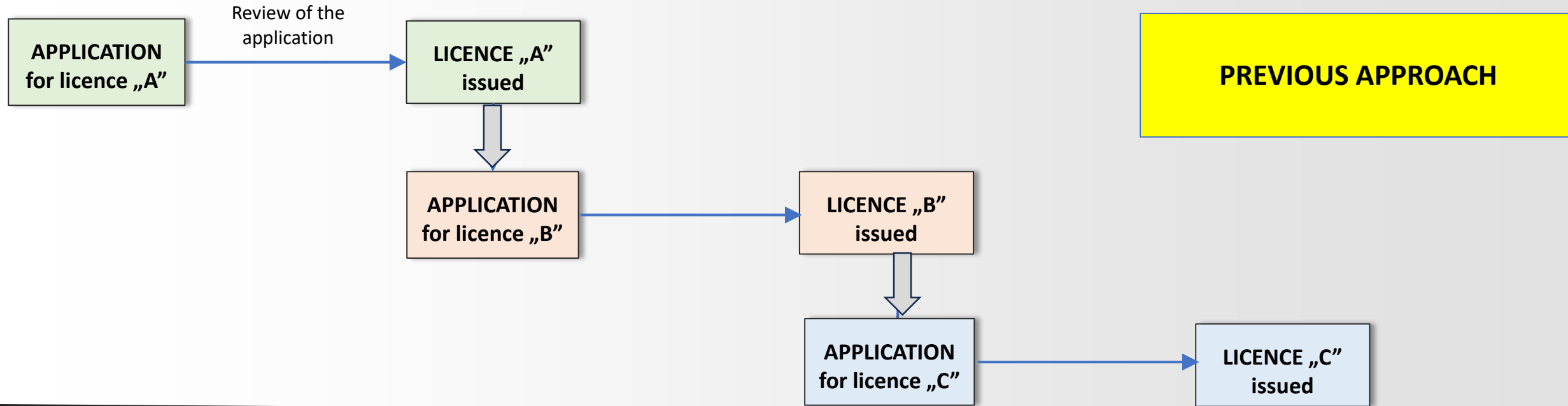


The voivode shall determine the compensation within 2 months from the date on which the decision has become final. The decision is not subject to appeal.



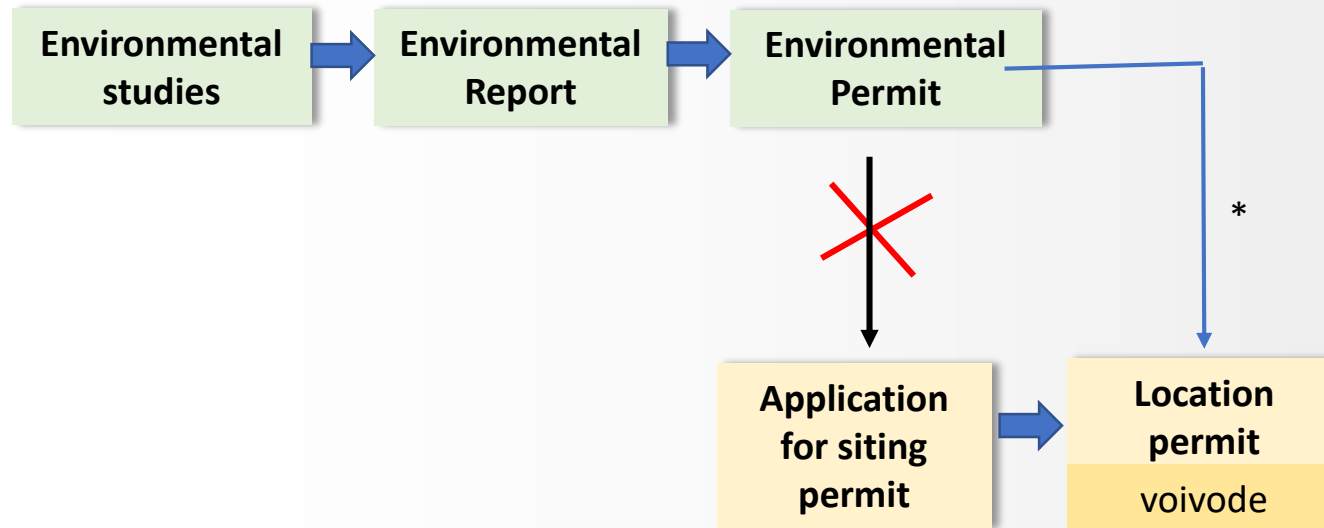
The voivode shall enter the contract on establishment of perpetual usufruct within 30 days from the date of submitting the request

More efficient, paralel administrative procedures (1)



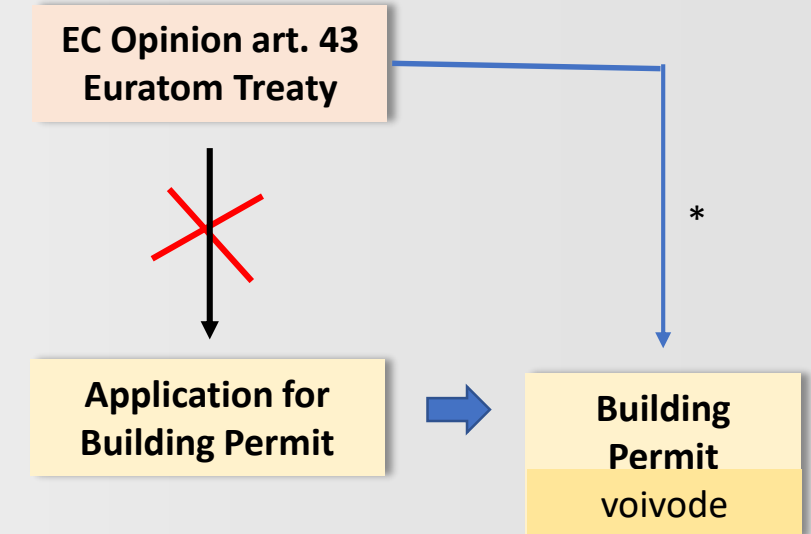
More efficient, paralel administrative procedures (2)

Example 1.








* A condition for issuing a location permit is the prior obtaining and submission by the applicant of an environmental permit

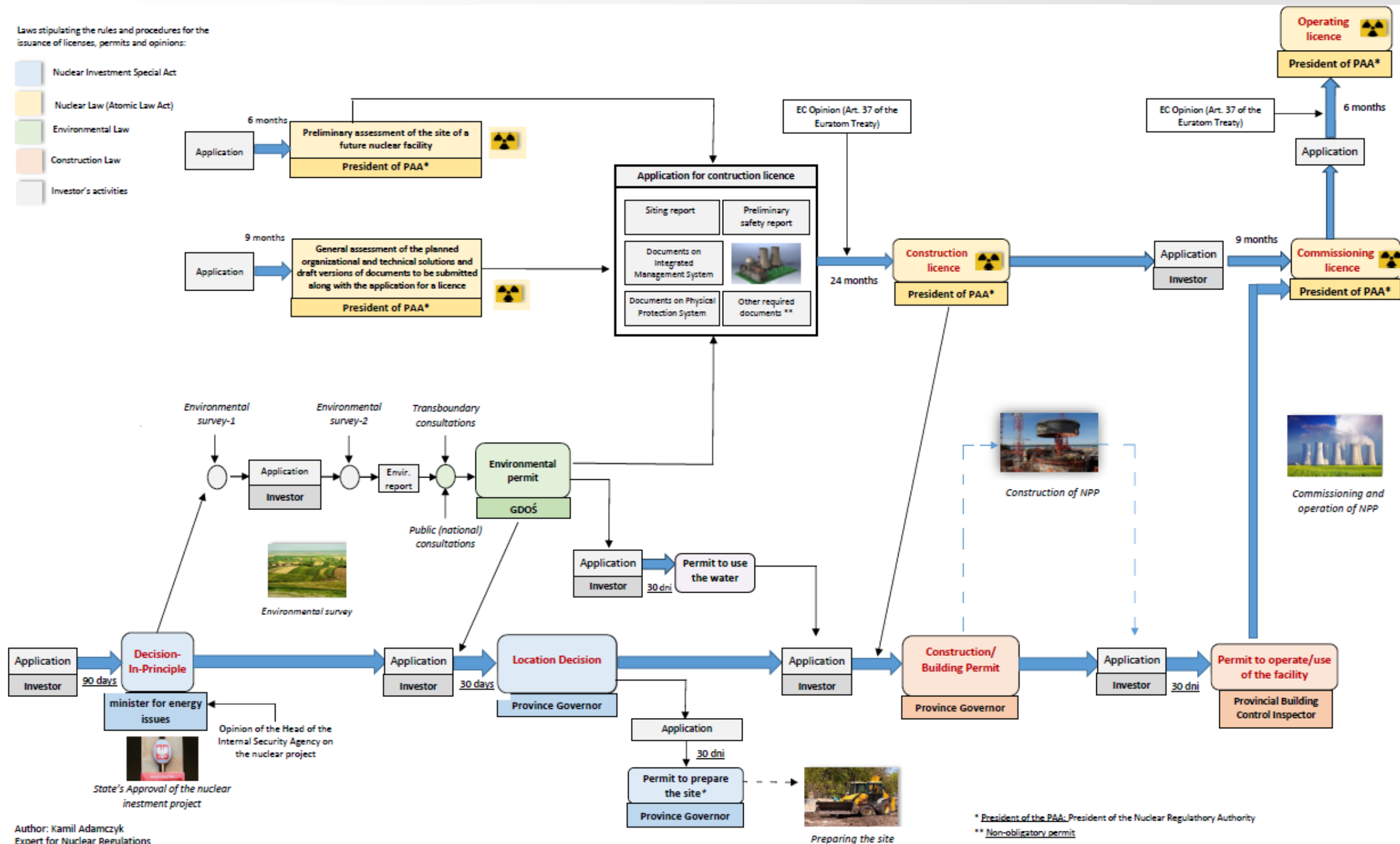
Example 2.



* A condition for issuing a Building Permit is the prior obtaining and submission by the applicant of an EC Opinion

Laws stipulating the rules and procedures for the issuance of licenses, permits and opinions:

-  Nuclear Investment Special Act
-  Nuclear Law (Atomic Law Act)
-  Environmental Law
-  Construction Law
-  Investor's activities



Permit for preparatory works

- **Prior to obtaining a permit for the construction of the nuclear power facility**, the investor may apply for issuing the permit for preparatory works including:
 - 1) geodetic works, **land levelling**, development of the construction site including **construction of temporary construction facilities of technical and social and office back-up facilities of the construction site**, temporary fencing of the construction site with a height of up to 2.5 m, construction of incorporation of temporary roads into public roads, (...)
 - 2) **demolition of existing structures;**
 - 3) **removal of trees or shrubs** located on the real estates covered by the decision on determining the location of the investment for the construction of the nuclear power facility.



Instrument to support openness and public participation (local community)

NPP Investor required to establish Local Information Centre:

Article 39m. 1. Investor in a nuclear power facility shall open a **Local Information Centre**, no later than on the day when the application for construction permit is submitted.

2. The Local Centre shall be operated by the investor in a nuclear power facility (...) **until its decommissioning process is completed.**

3. The Local Centre shall be implementing the following tasks, in particular:

- 1) collecting and providing updated **information on the operation of the nuclear power facility;**
- 2) collecting and providing updated **information on the status of nuclear safety and radiological protection** in the area surrounding the nuclear power facility;
- 3) **cooperation with administrative bodies, public sector entities, and other entities in conducting activities related to public communication,** education, popularization and distribution of scientific, technical and legal information concerning nuclear power engineering, nuclear safety and radiological protection of nuclear power facilities.



Instrument to enhance public acceptance of NPP investment project

Benefit sharing among municipalities in relation to the construction of nuclear power plants:

- The municipality on which territory the nuclear power plant is sited, shall pay to the **bordering municipalities a fee in the amount equal to 50% of the real estate tax paid by the taxpayers of the real estate tax on the nuclear power plant**
- the aforementioned fee shall be divided **in equal parts among all the municipalities bordering with the municipality on which territory the nuclear power plant is sited** and shall be paid into the budget accounts of each of the bordering municipalities by the 25th day of the month following the month in which the real estate tax has been paid.

Facilitation of construction of the accompanying investments

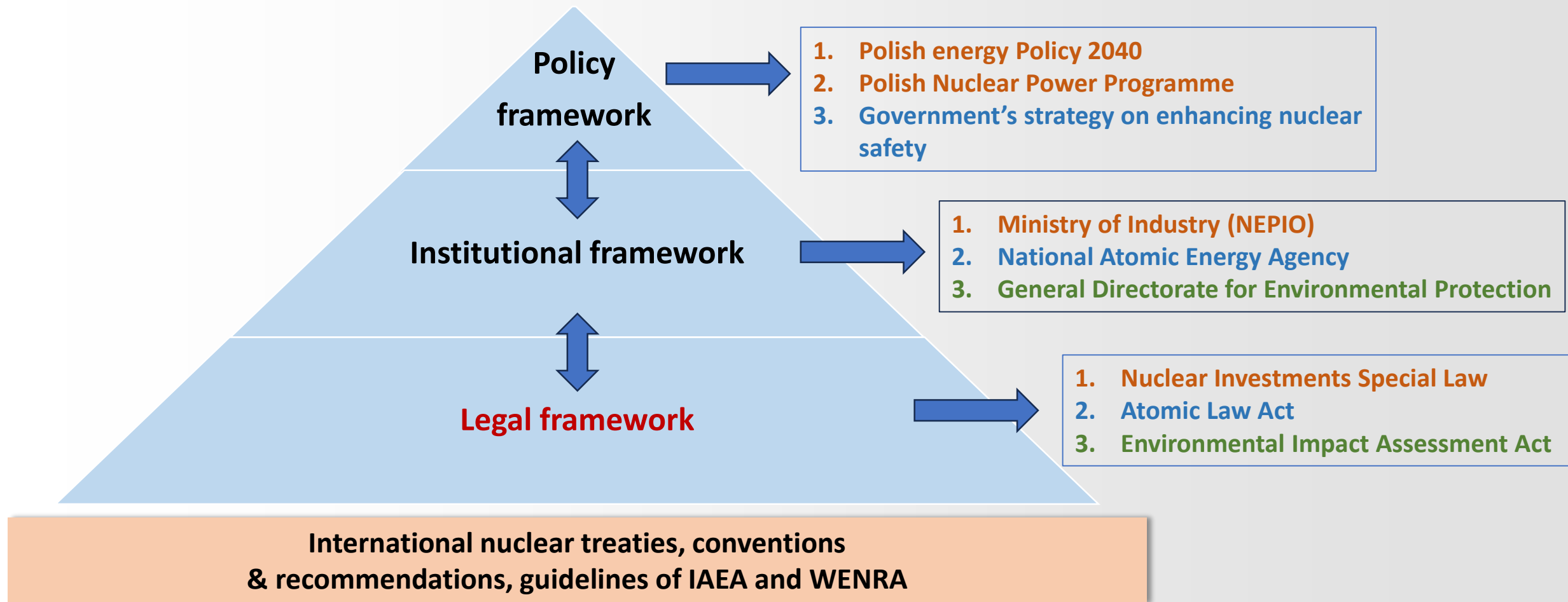
- **Administrative „fast track” to construct auxiliary infrastructure related to NPP projects**

In particular construction of:

- ☐ Infrastructure necessary to conduct site survey
- ☐ transmission and distribution grids, energy lines to NPP,
- ☐ roads or railways necessary to construct and operate NPP
- ☐ installations to produce hydrogen,
- ☐ energy storage facilities
- ☐ production buildings, assembly or manufacturing plants
- ☐ district heating or cooling networks necessary to take out heat or cold from a NPP
- ☐ water, district heating, telecommunications and IT networks necessary to construct and operate NPP



Summary of national framework for nuclear power projects



Thank you for your attention

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