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# AI-based Policy Making Process

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Public policy development is becoming more and more challenging for public administrations and the recent events (first of all the Covid-19 Outbreak) demonstrated how an evidence-based approach is crucial for managing critical situation with short responses, fast adaptation and citizens'support.

The ultimate vision of data-driven policy making entails the use of Artificial Intelligence (AI) as a means of increasing the efficiency of the policy development and management (i.e. going beyond development to adaptation and optimization) process and boosting a more responsive, adaptive, intelligent and citizen-centric governance.

Cross-industry standard process for data mining, known as **CRISP-DM**, is the most widely-used open standard process model that describes common approaches used by AI experts.
AI4PublicPolicy leverages this model to promote an AI-based Policy Making process addressing the objectives below:

- Provide a **data-driven**, **AI-based and evidence-based** approach to **policymaking**
- Promote and facilitate the **collaboration between Policy Makers and AI Experts**
- **Involve citizens** and other stakeholders in the Policy evaluation and optimization
- Boost the **acceptance of the policies** presenting and explaining the Policy development outcomes
- Reuse and share Policy development models and datasets

The main steps of the AI4PublicPolicy AI-based Policy Making Process are as follows:

- **Phase 1 - Policy Definition:** In this step the Policy Maker starts creating an Analytical Policy Model describing the Policy problem(s) and associating and describing relevant Datasets for the Policy.

- **Phase 2 - Policy Extraction:** In this step an AI Expert, or the Policy Maker him/herself with AutoML support, creates one or more AI Workflows to analyse the datasets and prepare the data to train and test AI Models based on different AI Algorithms, in order to provide responses (insight, recommendations) to the Policy problem(s). The Policy Maker executes the AI Models on new data, analyses the responses and validates the AI Models.

- **Phase 3 - Policy Evaluation:** In this step the Policy Maker involves the relevant stakeholders (citizens, business and other local actors). in the Policy Evaluation creating one or more surveys on the Policy problems, AI model responses and Policy alternatives. The Policy Maker then evaluates stakeholders' feedback, presented with a statistical or sentiment scoring, and decides to complete the Policy with actionable outcomes or optimizing it taking into account stakeholder's feedback.

- **Phase 4 - Policy Presentation and Sharing:** In this step the Policy Maker uses eXplainable AI (XAI) techniques provided by the platform to better understand and explain the rationale behind the AI Models responses. Once completed this step the Policy Maker could present the final Analytical Policy Model, which represent the result of the AI-based Policy Making Process, to the relevant stakeholders and publish it in a shared catalogue.

## Other key topic

## Key Topic

Machine learning and AI

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