IRENE Pro is more than a gas network calculation program. It is an analysis tool for designing gas networks, performing network calculations and determining the level of risk or delivery reliability.

The basic function in IRENE Pro is capacity calculation. However, extra modules can be added as required in order to extend the functionality of IRENE Pro. New modules are regularly developed in close collaboration with users and customers, leading to further expansion of the analysis options within IRENE Pro.

The benefits offered by IRENE Pro:

- Can be used for small, medium and very large (>100,000 pipes) gas networks
- Fast and reliable calculations and presentation of results
- Simple and easy communication with your information systems
- Excellent customer support and helpdesk
- Easily scalable and user-friendly interfaces
- Proven expertise in the gas sector
- Can be used for different gases (natural gas, bio gas, hydrogen, CO2, etc.)
- Pipeline owners
- Pipeline operators
- Network operators
- Infrastructure companies
- Construction contractors
- Network calculation specialists
- Asset specialists
- Network designers

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- Risk analysts
- Capacity determination for gas networks
- Designing gas networks
- Dimensioning gas networks
- Performing reliability analyses for gas networks
- Determining the impact of feeding in bio gas and green gas

IRENE Pro is both powerful and user-friendly at the same time. IRENE Pro combines all the knowledge of Kiwa Technology and the experience gained with previous versions of IRENE in a single new analysis package.

The power of IRENE Pro:

- Calculation of an unlimited number of pipes.
- Ability to calculate with all types of gas. So not just natural gas, but also bio gas, green gas, hydrogen and CO_2.
- Ability to simultaneously process calculations for multiple networks.
- Extra analyses, such as tracing fed-in (green) gas, how quickly the gas is transported and where the greatest pressure loss occurs.
- Design calculations: ability to calculate the optimum diameters for your network.
- Profile calculations: how does pressure vary during the day.
- Delivery reliability analyses: which stations are critical, which customers run the greatest risk of not receiving delivery.

The user-friendliness of IRENE Pro:

- Simple installation on a stand-alone computer or laptop,
- No requirement for an extra powerful computer,
- IRENE Pro can even be run from a USB stick if required,
- Open for all CAD/GIS systems,
- Extensive "undo/redo" function,
- Snap function when drawing networks,
- Intelligent search functions,
- Good export to Microsoft Office (Excel) with extensive options,
- Screen display can be saved as an illustration ("geo-referenced") in the following formats: jpg, png, tif.

IRENE Pro is 'state-of-the-art'.

This makes the program user-friendly and pleasant to operate:

- Display of background maps,
- Display of scale and grid lines,
- Rapid zoom function,
- Clear differentiation between the different networks,
- Total freedom in setting colours, line thickness, font sizes, units, etc.

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Modules

New posibilities for analysis are continuesly developed. The beauty is, that you can bring in your own ideas. Currently the following analysis modules are availble:

- **IRENE Pro St**

  The basic analysis module for pressure and capacity calculations. Also included is **IRENE Green** functionality for analysis of gas networks with biogas or green gas supply.

- **IRENE Pro Design**

  This modules calculates the optimal diameters for pipes that are to be replaced or even for complete new gas networks.

- **IRENE Pro CML**

  CML stands for Customers Minutes Lost. This is a risk analysis of your gas network. What is the chance of delivery failure and how many consumers are involved. The calculation is based on the fail chances of the components that are used in the network.

- **IRENE Pro Profile**

  With this module you can model the gas consumption profile. With this model you can analyse the pressure at each time of the day instead of only the peak consumption.

Training

IRENE Pro is easy to use and requires little time and effort during the familiarisation phase; a clear manual is available for this. In addition, Kiwa Technology offers customised training courses for the different types of IRENE Pro users.

Support

Kiwa Technology provides adequate support for all its IRENE Pro users. Any questions are handled quickly and accurately by the service desk.In addition, we listen seriously to desires expressed by customers. We organise a user day once a year so that customers can indicate their wants and share experiences. These are our input for further development.
To sum up; the user directly influences further development of the program.