

Energy transition in Geneva

A long path started in 1986

Experiences and meaningful tools

UN Economic and Social Council
Economic Commission for Europe
Group of Experts on Renewable Energy

Fourth session

Geneva 2-3 Novembre 2017

2nd Novembre 2017

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Services industriels de Genève

Head of Energy Transition

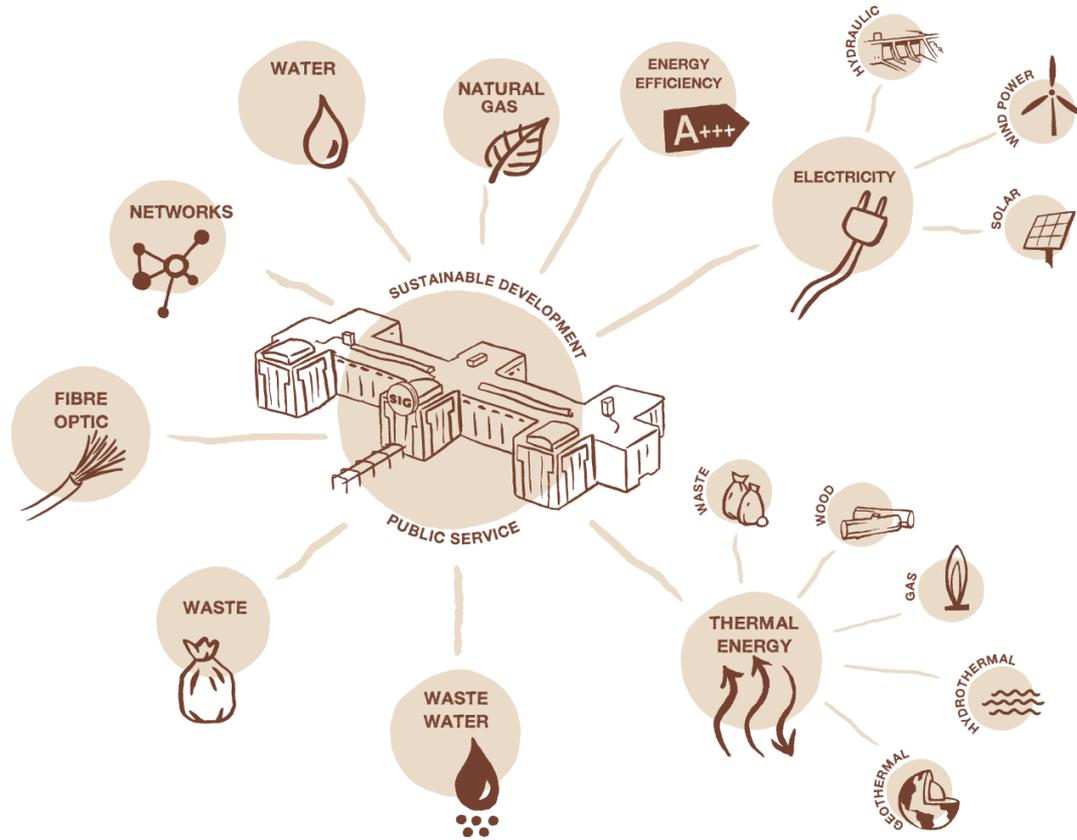




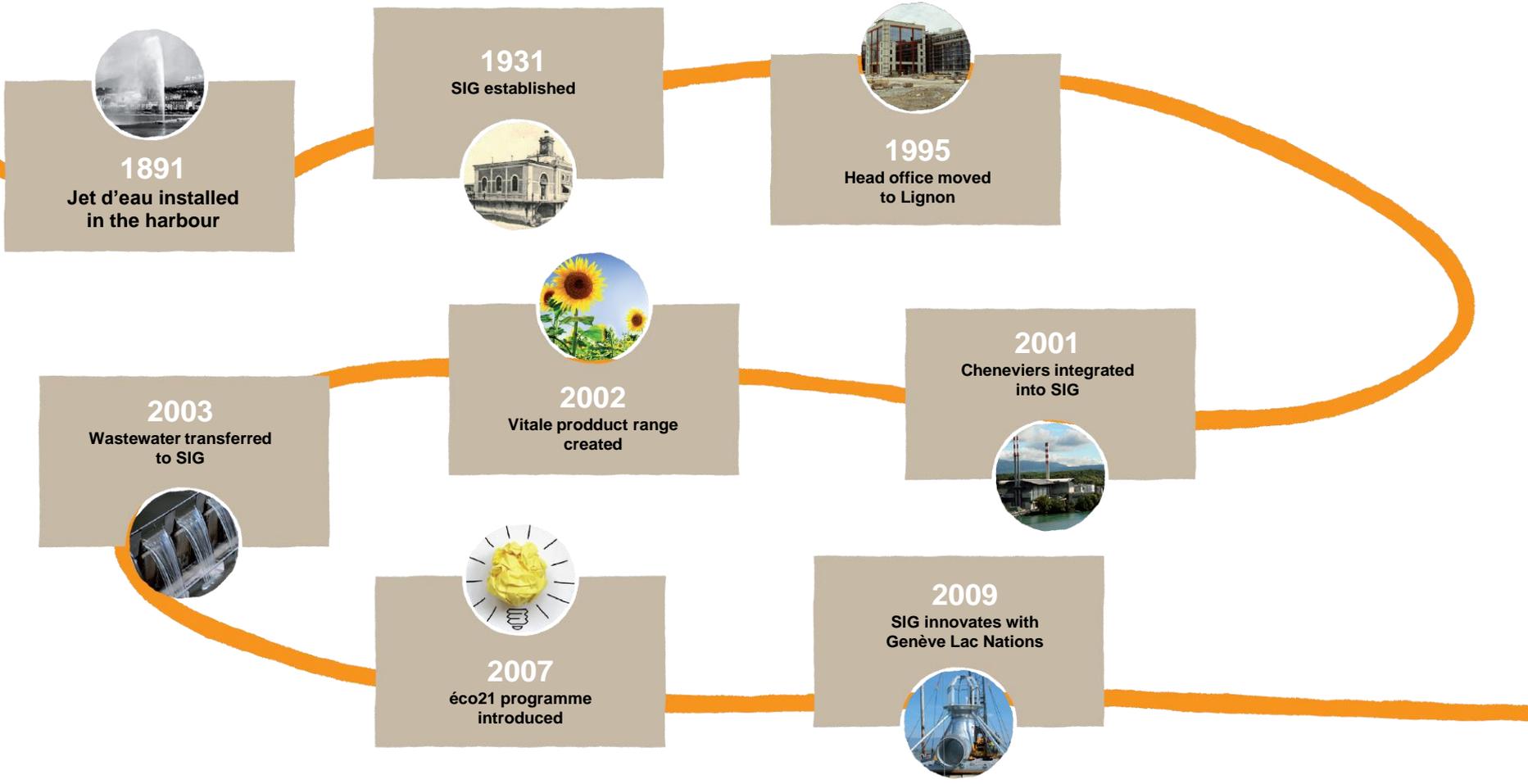
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Who are we ?

Satisfying 225,000 customers 1,675 employees, over 145 know-hows



Our History



Stratégie 2025

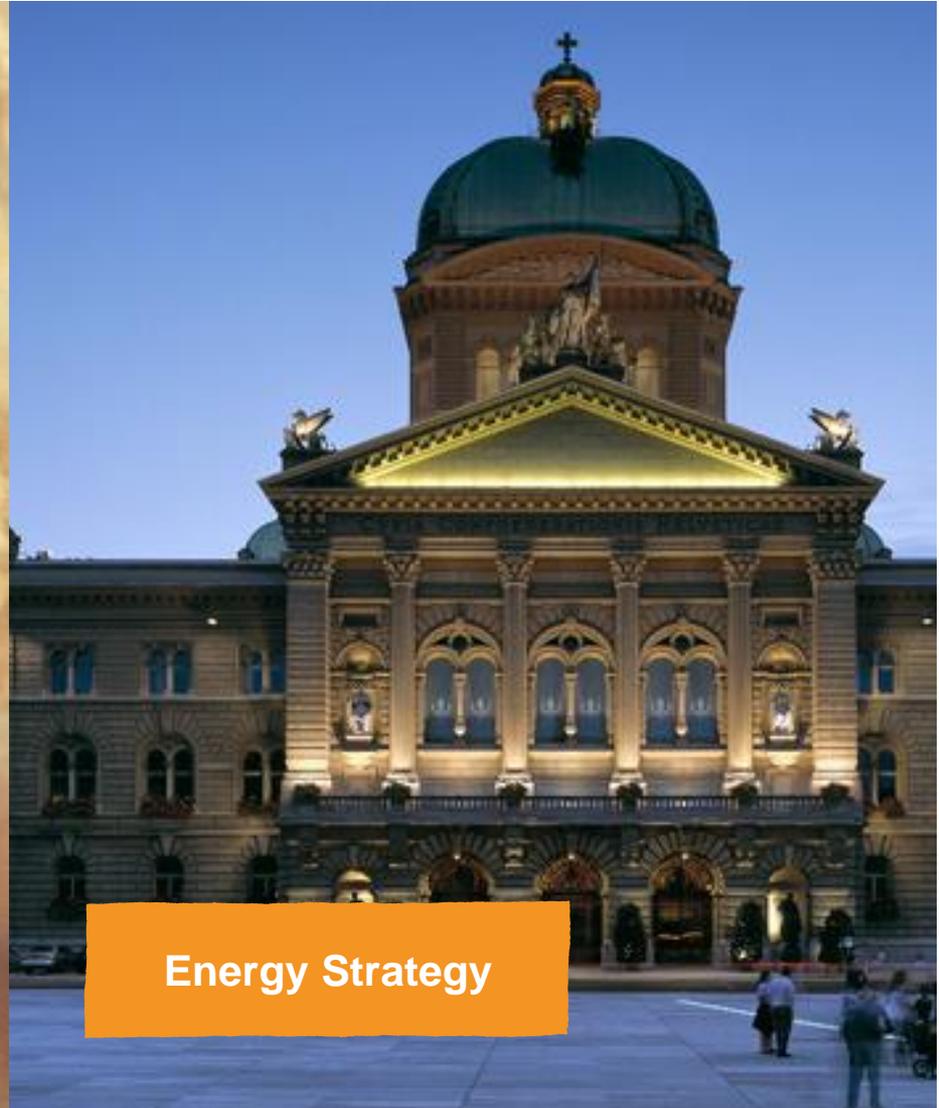
VERS UNE SOCIÉTÉ DURABLE ET CONNECTÉE



Context : A fast-changing World



Climate changes



Energy Strategy

Our Vision

A reference for the energy transition in Switzerland, SIG is an industrial actor committed to the development of a sustainable and connected society



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2

Why a *Sonderfall Genf* in Geneva ?

A Sonderfall Genf on energy ?



The building of a specific energy culture in Geneva

1970-85

Widespread oppositions to nuclear power plants projects in Geneva (Verbois) and later in France (Creys-Malville). This successful experience creates a particular sensitivity in Geneva regarding the sources of electricity supply.

1986

Geneva's referendum on nuclear phase-out

As a consequence, SIG must guarantee that no nuclear power is included in Geneva's supply. The only way to do so is to certify the origin of a 100% of Geneva's electrical supply, which will be done within 15 years, as there is no preexisting system.

2002

SIG innovates : SIG Vitale products range

This certification is used as a tool in order to make clients aware of the importance of electricity sources which is not a public concern at the time.

2002-07 : More people become aware of the importance of electricity quality and realize they can have an impact on the future of energy sources by choosing electricity sources fitted with their personal values

2007

éco21 Programm

In accordance to Geneva's State, SIG launches éco21 Program. The goal is to significantly lower the electricity bill of Geneva's actors in all sectors.

2010

New Law on energy

In a referendum, Geneva adopts a new law on energy, the most progressive one in Switzerland. It contains mechanisms to improve energetic retrofitting of a number of Geneva's older buildings

Today, a large part of the population of Geneva (households, companies, municipalities) have freely adopted SIG Vitale Vert electricity, paying a bit more for it. Clients' response to éco21 propositions has been widespread and has reduced Geneva's electricity bill by 5% in 10 years, while the population has increased by 8% during that time. Around 7 MW of Solar modules are being installed every year. These achievements have also allowed for the sustainment of economic growth and have lowered energy dependency in the canton.

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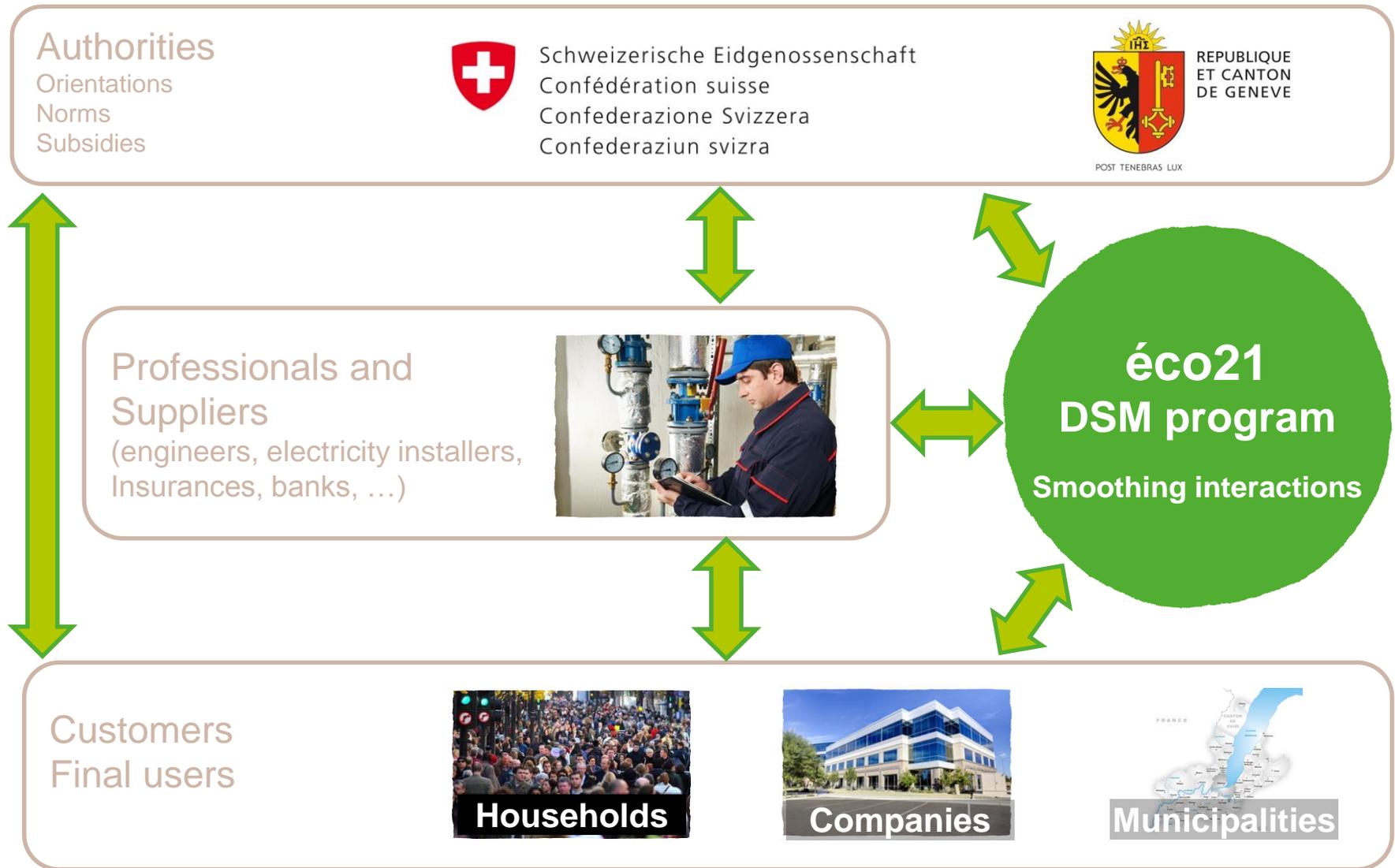
What did we learn on Energy Efficiency and Renewable energy promotion ?

éco21 - History

- ❏ In 2007, éco21 was launched by political decision
A budget of 17.5 M€ had been given, as an alternative option to meet the regulator's requirement
- ❏ In 2009, SIG decided voluntarily to add 26.5 M€ to the program.
This decision followed a redefinition of the company strategy in favour of energy transition
- ❏ Although this orientations were taken at a period when the market showed high energy prices, they have been kept later, when energy prices sank dramatically



Moving the whole system towards energy efficiency



Impact of éco21 Programme

Electricity consumption per capita





« *We sell energy. Why on earth would we encourage our customers to save it ?! »*

« A DSM program could help us develop commercial energy services »

« **With us, you will possibly not have the lowest tariff, but you will pay less because you will use less energy »**

« **Hi, I was wondering what we could offer this customer to keep him, so I thought about your stuff, you know, éco-something... »**

« We are proud to be the first utility to operate a DSM program in Switzerland... and it works ! »

Key success factors

Cleaning our brains before we clean the climate...



Citizens are OK to participate...

...but we have to make it easy !

... and then we have to make it easy for us first!

SIG has to earn money...

... but also to play a leading role
in Energy transition

... and WHERE is the contradiction ???

Conclusions (2/2)

On our DSM program



Evolutions from 2007 :

- Increasing importance of non-financial support : formation, information, tools
- Understanding of non-financial barriers : general barriers as resistance to change for both customers and actors, need for confidence in new technologies or actions
- Understanding of our role : using our notoriety, our image to build confidence in both customers and actors
- Our programs are and will be more structured with more non-financial support
- We are developing networks with both customers, intermediates and professionals actors. Our vision is to create jobs outside SIG rather than within SIG

External issues that will guide our evolutions :

- SIG's main issues : market liberalization, unbundling, SIG economic performances
- Federal laws evolutions : white certificates system or not
- Relationships between SIG and its shareholders : new missions such as EE officially assigned to SIG or not

Electricité
Vitale
Vert

Fait ici, pour ici.

Electricité Vitale Vert,
100% écologique et 100% locale.

www.sig-vitale.ch



naturemade
star II

Ce label suisse garantit la provenance de l'énergie et sa production selon les critères écologiques les plus exigeants d'Europe.

LES ÉNERGIES 

Electricité Vitale

100% renewable



Electricité
Vitale
Bleu

The Swiss
hydraulic
energy

100% Vitale Bleu



Reference
product

Electricité
Vitale
Vert naturemade
star!

100% ecological and 100% local

You can choose between:

20% Vitale Vert



+ 0,8 ct. / kWh

+0,8 ct./kWh

40% Vitale Vert



+ 1,6 ct. / kWh

+1,6 ct./kWh

100% Vitale Vert 



+ 4 ct. / kWh

+4 ct./kWh





The carbon-neutral natural gas

Gaz Vitale Bleu



Towards a greener and more local gas

10% biogas, made in Geneva

90% compensated with environmental projects in Geneva

You can choose between:

Gaz 20% Vitale Vert



+0,2 ct./kWh

Gaz 100% Vitale Vert



+1 ct./kWh



Electricité Vitale Business model



SIG promotes solar energy consumption

SIG promotes and build solar production facilities

Electricité Vitale

**Agiol/
Price**

% solaire

1) SIG buys solar energy from privates

2) SIG develops its own solar production

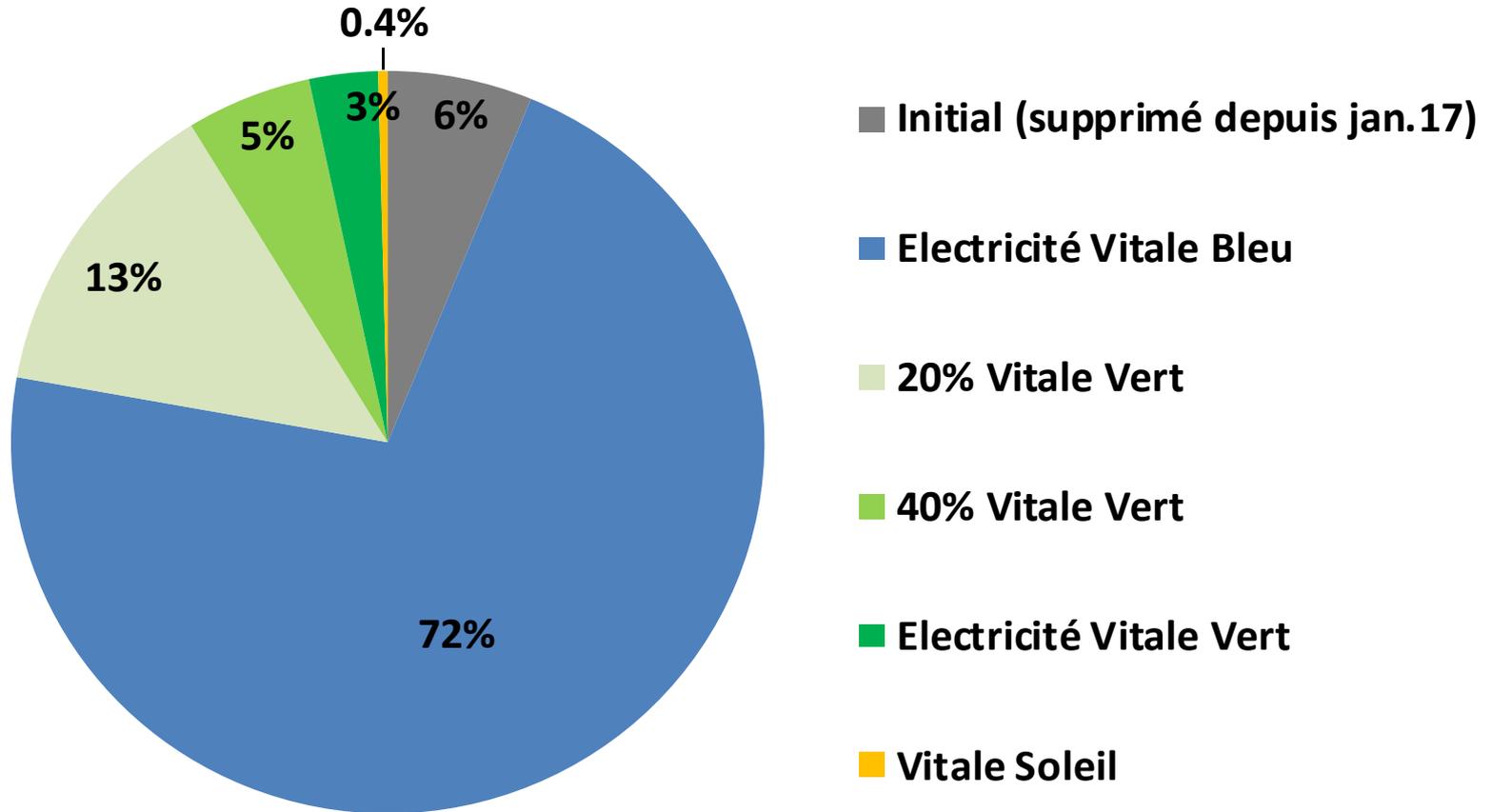
Advantages :

- ✓ The more we get Vitale Vert customers
- ✓ The more solar production can be developed
- ✓ The more energy costs sink
- ✓ The more the solar share in SIG Vitale Vert can increase !

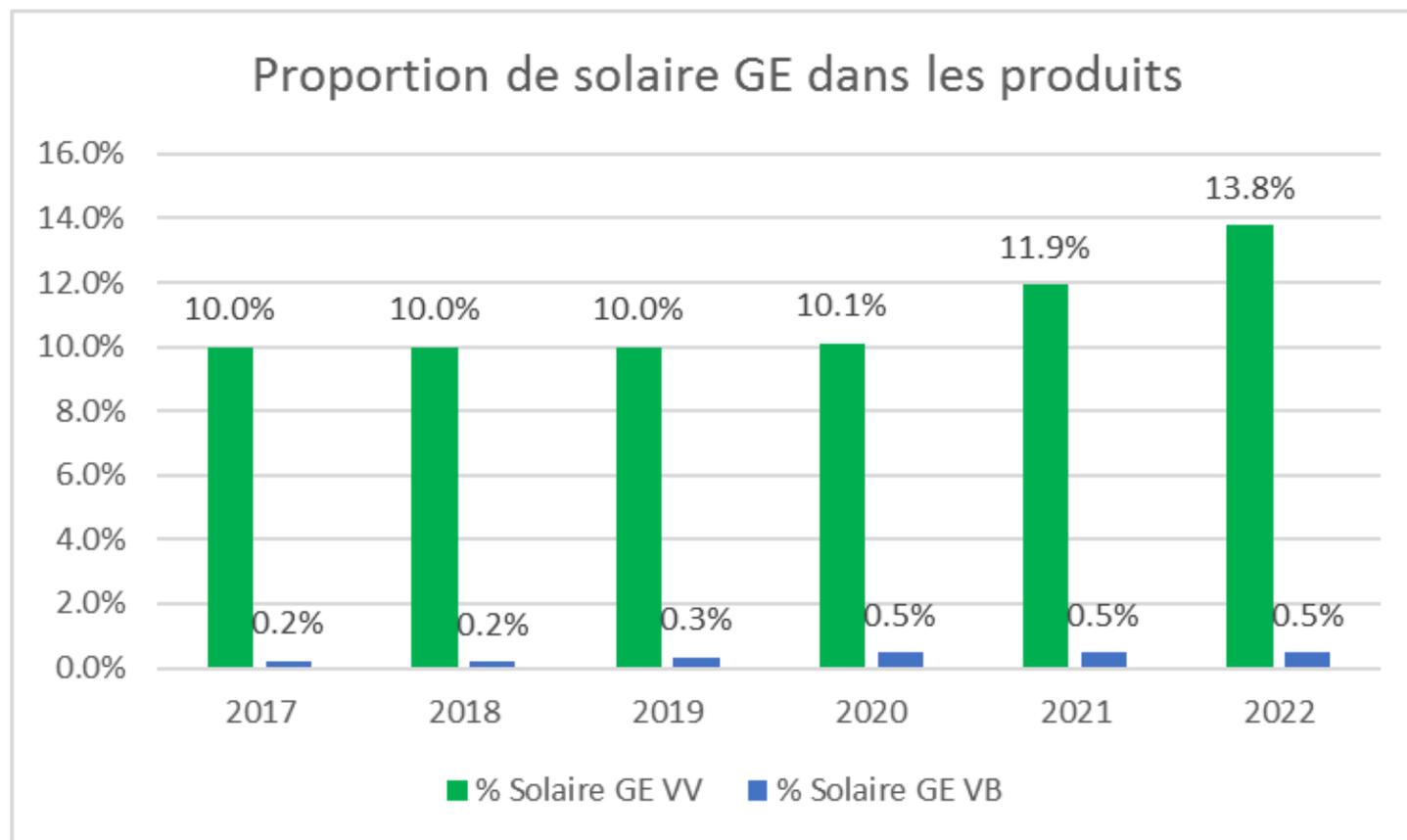


Sell – supply equilibrium

Les résultats: parts de marché à fin 2016



Part de solaire genevois dans les produits Electricité Vitale



Note 1: il y a 100% de solaire genevois dans Electricité Vitale Soleil.

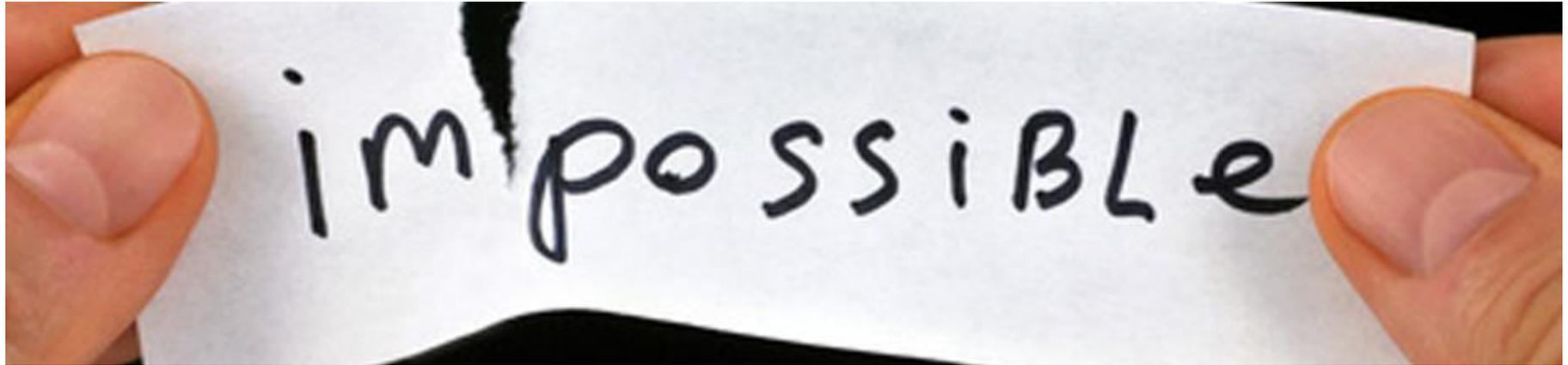
Note 2: il y a 0,5% de nouvelles énergies renouvelables dans Electricité Vitale Bleu dès 2017.

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4

Conclusions

Conclusion



**Those who believe it is impossible are asked
not to disturb those who are trying**

Voltaire / Cécile Coulon