

# Communication Excellence

## PIME 2006

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 14th February 2006

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# Security of Energy Supply



### FREQUENTLY ASKED QUESTIONS

## What the clash means for Ukraine – and for Europe

An Russia's dispute with Ukraine over gas prices has provoked problems for Europe. What does it mean for Ukraine – and how the dispute might be resolved.

**Why has Russia barred gas supplies to Ukraine?**

Russia has provided its former Soviet neighbours with heavily subsidised gas since the USSR collapsed in 1991 – partly to keep them within its sphere of influence in order to keep its share in market prices. However, Russia's massive state-controlled gas company, Gazprom, has already agreed to raise prices with several western European states.

Ukraine says it is being asked to pay far more than any of these, suggesting that the matter is political. In the months before the Orange Revolution a year ago that brought the pro-western Viktor Yushchenko to power, Ukraine is said to pay \$200 (£134) per 1,000 cubic metres of gas – up from \$60 this year. Latvia, Lithuania and Estonia, all now European Union members, pay just \$10, as does Georgia, which also had a pro-western revolution two years ago. Belarus, loyal to Russia, pays little over \$6.

**What does this mean for Ukraine?**

Officials have said the country has enough gas to underpin its economy. Ukraine is said to be able to store it until the end of the winter. Beyond that, it could struggle. Of the gas it is now importing, it has 100,000 tonnes in its tanks. It has also been told by Turkey and other states, another former Soviet republic (although the Turk

...can gas travels through Russia via Gazprom's pipelines and pipelines that it itself is in difficulties if Gazprom cut off supplies of Turkish gas.

**What does it mean for the European Union?**

The EU gets a quarter of its gas from Russia – most of it flowing through the gas pipeline "Brest-Litovsk".

Russia's reduction of the volume it pumps into the pipeline is already leading to lower deliveries to central and western European countries.

Russia has accused Ukraine of "sabotaging" the removal of gas from the transit pipeline. But Yuri Yekhanov, Ukraine's prime minister, had earlier said Ukraine was entitled to make its current contract with Russia to take it for part of gas reported across its territory at a transit fee.

**What are the risks for Europe?**

Russia says it has cut gas supplies to Ukraine to force it to pay more for gas. It has also said it will cut supplies to other European countries if it does not get its price raised. The EU has already said it will cut supplies to Russia if it does not get its price raised.

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## Moscow has more than just the price of gas on its mind

By Neil Buckley in Moscow

An air of increasing tension surrounds the gas dispute between Russia and Ukraine. The EU has already said it will cut supplies to Russia if it does not get its price raised. The EU has already said it will cut supplies to Russia if it does not get its price raised.

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## FINANCIAL TIMES

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Tuesday January 3 2006

## The Kremlin tightens the energy screw

Europe must reduce dependence on Russian gas

# Renewed interest in Nuclear Energy

THE NUCLEAR COMMUNICATIONS NETWORK  
[www.worldnuclear.org](http://www.worldnuclear.org)

NucNet

5 January 2006 / Insider N°1

**N-Power 'Has Role To Play' In Europe, Says EU Energy Commissioner**  
5 Jan (NucNet): Plans for the introduction of a common EU energy policy were announced by European energy commissioner Andris Piebalgs on 4 January 2006.

Mr Piebalgs' announcement followed a speech to a meeting of the Energy Charter Conference\* in Brussels on 9 December 2005. In that speech, the commissioner outlined some of what he described as the EU's "major policy initiatives and thinking" including on nuclear related issues.

The commissioner said "central themes" of future proposals would cover decommissioning and waste management and he added that nuclear energy "also has a role to play in those countries which choose to keep this option open". Highlights of the speech are as follows:

"For a long time, energy policy had largely been taken for granted, with abundant supplies and relatively stable prices. But the situation has changed, with a much tighter energy market and significantly higher prices. It is clear therefore that we need together a more coherent strategy and I would like to set out our thinking on this for three main areas: how to secure sustainable energy supplies in the longer term; the role played by international relations in our energy strategy; and, briefly, our thinking on how to respond to higher energy prices.

# Need for European Energy Policy

NUCNET

THE NUCLEAR COMMUNICATIONS NETWORK  
www.worldnuclear.org

4 January 2006 / News N°2

**Gas Supply Concern Prompts Move Towards Common EU Energy Policy**  
EU energy commissioner Andris Piebalgs said today that proposals for a common European energy policy would be presented to EU member states before the end of 2006.

Mr Piebalgs' announcement came as the EU welcomed an agreement for the resumption of gas supplies to Ukraine following a dispute which led to the suspension of Russian gas deliveries to Ukraine in October 2005 and reductions in deliveries to some EU member states.

Mr Piebalgs said the EU needs a clearer and more collective and cohesive policy on security of energy supplies. "To date, the issue of security of energy supply is only really considered at an informal summit of EU leaders in the UK in October 2005. It is time to address this in a much greater European-wide approach on this issue."

## EU energy chief vows action to avoid future disruption

By Sarah Laitner in Brussels and Bertrand Benoit in Berlin

Europe's top energy official yesterday vowed to make securing energy supplies his priority in the aftermath of the Russian-Ukrainian gas dispute.

Andris Piebalgs, energy commissioner, said the European Union should consider greater power diversity and ensure a strong internal

energy market after the stand-off disrupted gas deliveries to the EU. He said: "Europe needs a clear and more collective and cohesive policy on security of energy supply. We should look at our general energy mix."

After Moscow and Kiev yesterday settled the dispute that had led to temporary disruptions to gas supplies in some EU countries, the EU said it believed Russia would

be a reliable supplier in the future but the EU should learn lessons from the dispute.

EU countries have resisted giving Brussels greater sway over the sector but Mr Piebalgs is due in March to suggest ways to develop a common European response to the energy challenge.

This might include ideas for diversifying the network of pipelines bringing gas to

the EU, improved energy efficiency, investments in cross-border infrastructure, greater gas storage capabilities and broadened supplies. The review could also touch on the hugely controversial topic of nuclear energy.

Countries such as Hungary and Poland, which are heavily dependent on Russian gas imports, have called for greater EU co-ordination on securing and diversifying

energy supplies. Piotr Naimski, Poland's deputy minister for economics, said Warsaw was hampered by its reliance on gas pipelines from Russia. It wants EU political and financial support for planned new gas transport networks that would connect Poland and other central European countries with other suppliers, such as those in southern Europe. Lithuania yesterday said a

common stance on energy could help assuage concern among central European and Baltic states over a new gas pipeline directly linking Russia and Germany.

Countries could also look to other gas suppliers such as Libya and Algeria in the aftermath of the dispute to counter their exposure to Russian supplies.

Michael Glos, Germany's economics minister, yesterday called the dispute "regrettable" and said it would lead Germany to review its reliance on Russian oil and gas, currently among the highest of all large western-European economies.

The EU buys a quarter of its gas from Russia and 30 per cent of its oil, and the European Commission predicts EU dependence on the country's supplies will grow.

## Ukraine gas dispute puts pressure on EU energy policy

By Sarah Laitner in Brussels and Tom Warner in Kiev

Energy experts meet today in Brussels to thrash out the European Union's response to the Russia-Ukraine gas dispute after the stand-off led to a cut in EU supplies. European diplomats in Kiev said the EU could be prepared to play a more proactive role to help solve the dispute.

The threat to gas supplies has revived debate over whether the EU needs a common energy policy to address its growing dependence on oil.

October when he called for a common EU energy policy that included countries co-ordinating efforts to negotiate with suppliers. "For far too long we have been in the situation where, in a haphazard and random way, energy needs and energy priorities are simply determined in each country according to its own supply without any overall strategy or lecturing."

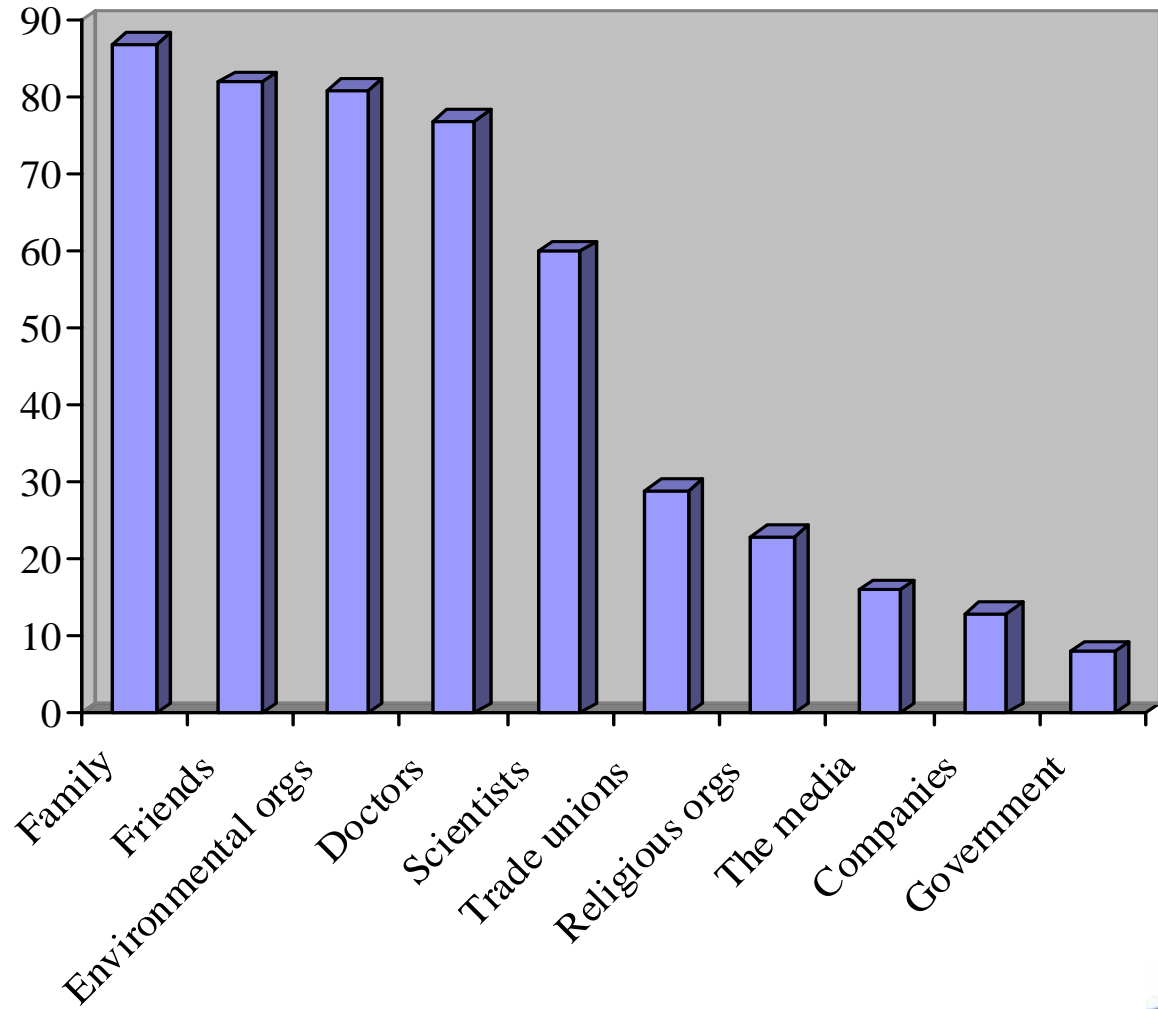
## FINANCIAL TIMES WEDNESDAY JANUARY 4 2006

### Energy disruption

...extend...  
...as energy...  
...over such a...  
...two thirds...  
...total energy and...  
...quarters of its gas will...  
...ported by 2020 are...  
...to spur calls for...  
...co-ordination to...  
...pipelines.

...has spent more...  
...cade liberalising...  
...electricity markets...  
...single pan-Euro...  
...efforts which...  
...hampers by...  
...weaknesses in...  
...energy network...  
...competition...  
...states have...  
...ideas such...  
...patrol over...  
...berve of...  
...ussels on...  
...regions.

# Who can we Trust

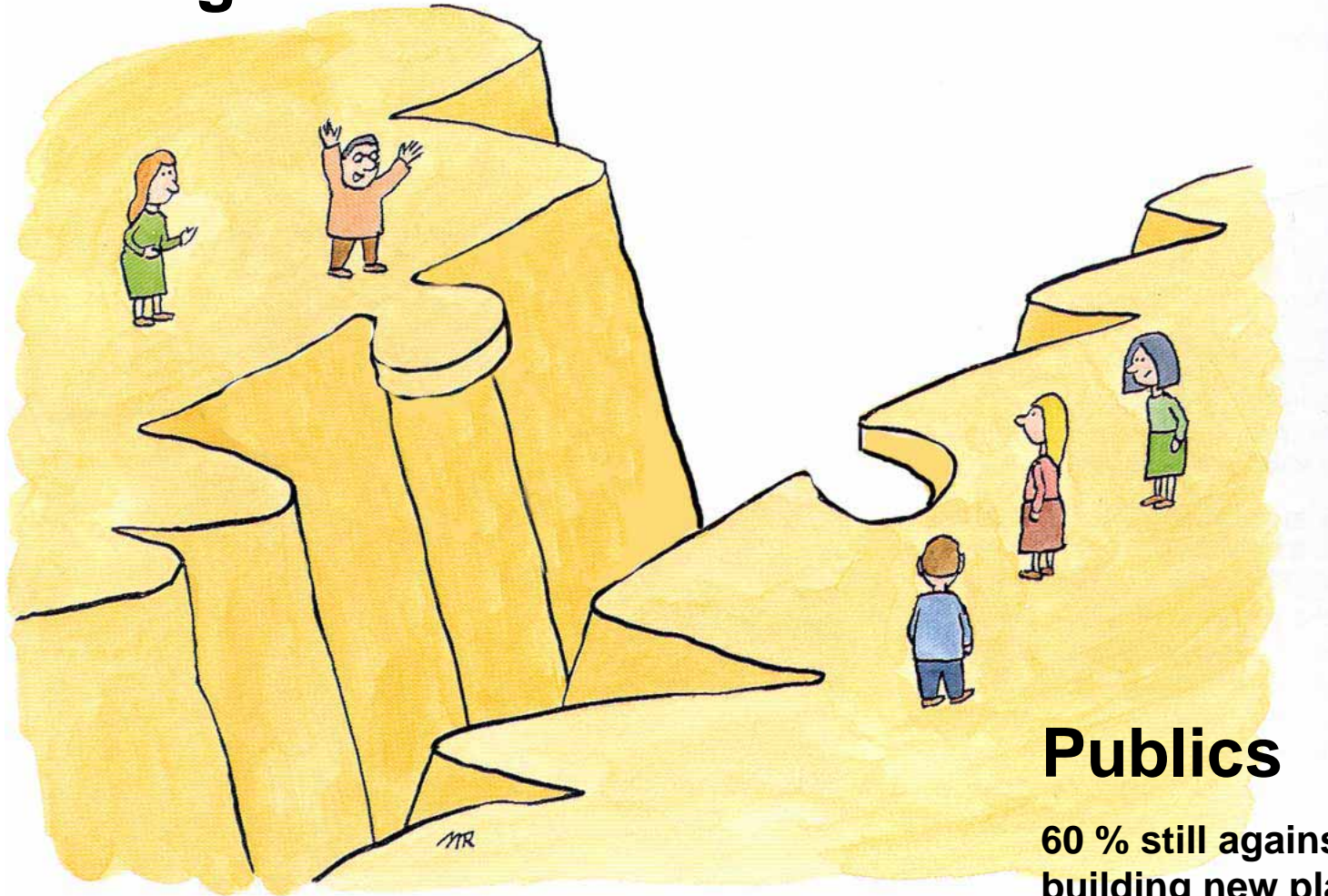


Malcolm Grimston Chatham house



# Bridging the gap

## Nuclear Organisation



## Publics

60 % still against  
building new plant

# Communication Excellence

- Two way symmetric Shared Understanding
- Assess, understand & categorise publics Know stakeholders
- Boundary spanning role Build trust and credibility
- Strategic targeting of publics Focus messages
- Focus messages through opinion formers Focus messages/trust & credibility
- Strategic Role *Knowledge base of communication team*
- Participative culture

**Creating a level playing field**

**Innovative Communication**

**Learn from Others**

# Need to Create a Level Playing field







**Need to create a level playing field in-order to increase awareness of the energy problem**

## Creating a Level Playing field

- Interactive energy game, developed by ECN /NRG







# Creating a Level Playing field

## Innovative communication

- V GAS Energy, Lifestyles & Climate







Build your profile...

CO<sub>2</sub>

CH<sub>4</sub>

H<sub>2</sub>O

Build Profile

MAP

**GLOBAL LIGHTS**

HOURS TURNED ON DURING A TYPICAL NIGHT \_\_\_\_\_

SUMMER 4 WINTER 6

Calculation of power consumption and emission of carbon dioxide from lighting takes into account the number of bulbs kept on, as well as their wattage and also the number of hours that they are kept on.

Incandescent **Fluorescent** Halogen Low Consumption

NUMBER OF BULBS \_\_\_\_\_ 5

POWER ( i.e. Watts ) \_\_\_\_\_ 25

menu



# Creating a Level Playing field

*Will shortly be available on the BBC web site*

## ELECTRICITY CALCULATOR

Use the sliders to create your preferred mix of energy sources or reduced demand in 2020:

**The electricity calculator is a guide to the tough decisions necessary to meet the UK's electricity needs in 2020.**

More or less fossil fuel? More or less nuclear? What about renewables? Or reducing demand? Make your choices, then find out the potential impact on greenhouse gas emissions and household bills, and whether the lights will even stay on.

Try as many times as you like before submitting your final choices to our database. Remember the calculator does not give precise forecasts, it's just a guide.

**START**

I'm happy with my choices Calculate results and show the potential impact

# Creating a Level Playing field

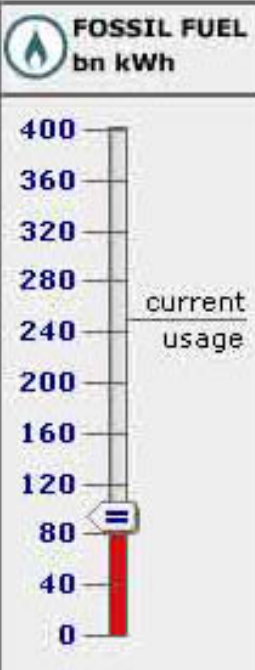
*Will shortly be available on the BBC web site*

## ELECTRICITY CALCULATOR

Use the sliders to create your preferred mix of energy sources or reduced demand in 2020:

### ELECTRICITY GENERATION OPTIONS

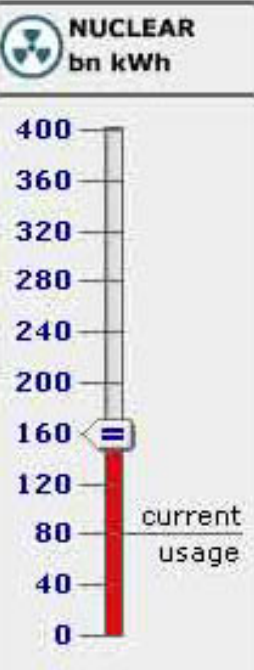
#### FOSSIL FUEL bn kWh



current usage

**MORE INFO**

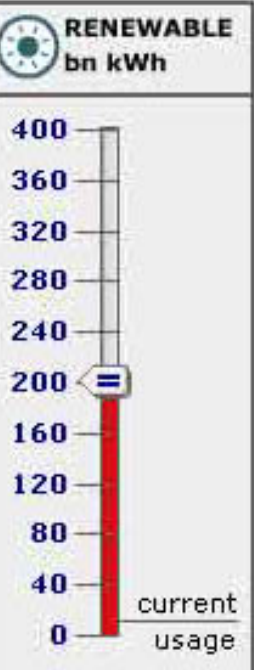
#### NUCLEAR bn kWh



current usage

**MORE INFO**

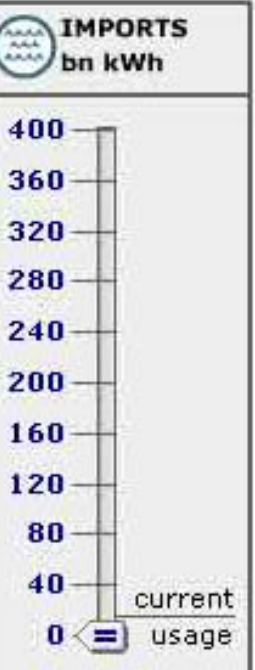
#### RENEWABLE bn kWh



current usage

**MORE INFO**

#### IMPORTS bn kWh

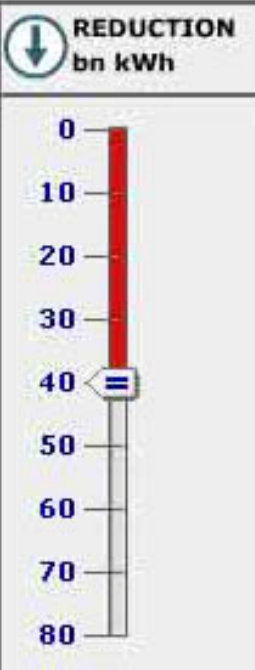


current usage

**MORE INFO**

### REDUCE DEMAND

#### REDUCTION bn kWh



**MORE INFO**

Bn kWh = billion kiloWatt hours, a standard unit of electricity consumption






I'm happy with my choices
Calculate results
and show the potential impact





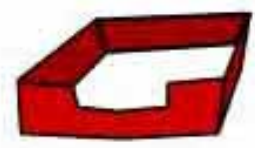
# Creating a Level Playing field

*Will shortly be available on the BBC web site*

**ELECTRICITY CALCULATOR: YOUR RESULTS**

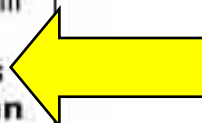
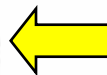
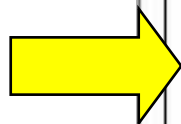
 <b>FOSSIL FUEL</b> 80 bn kWh	 <b>NUCLEAR</b> 160 bn kWh	 <b>RENEWABLE</b> 200 bn kWh	 <b>IMPORTS</b> 0 bn kWh	 <b>REDUCTION</b> 40 bn kWh
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**YOUR SELECTION COULD MEAN IN 2020...**

 <b>CARBON EMISSIONS</b> 13.74m tonnes <b>Carbon emissions are below target.</b>	 <b>ELECTRICITY GENERATED</b> 480bn kiloWatt hours <b>You've exceeded UK electricity demand.</b>	 <b>COST PER HOUSEHOLD</b> £304.64 average annual bill <b>Your electricity costs substantially more than now.</b>
--	---	---

**You'll be building 0 new fossil fuel power stations, 17 new nuclear reactors and 9255 new wind turbines, insulating 10.5 houses and buying 0% of electricity from overseas.**

**You can now**  **Or you can**  **to our database**



# Create a level "ENERGY" playing field

<https://www.hfpeurope.org/>

- Energy
- Population
- Energy demand
- Fossil energy *Climate, resources*
- Renewable energy, *solar, wind and hydro, biomass, other*
- Nuclear

## Create a level “ENERGY” playing field

**“I believe it is time that we developed within Europe a common European energy policy.”**

.....**Tony Blair**

As Communicators we need to develop a common understanding of all energy issues, creating a joint problem definition, which will in turn lead to conscious and informed choices of the energy at our disposal

We can not afford to wait until energy is in short supply, now is the time to act

# Learning From Others

## The Hydrogen Economy

- What can we learn
- Public perception
- Tackle the problem
- Strong visual impact

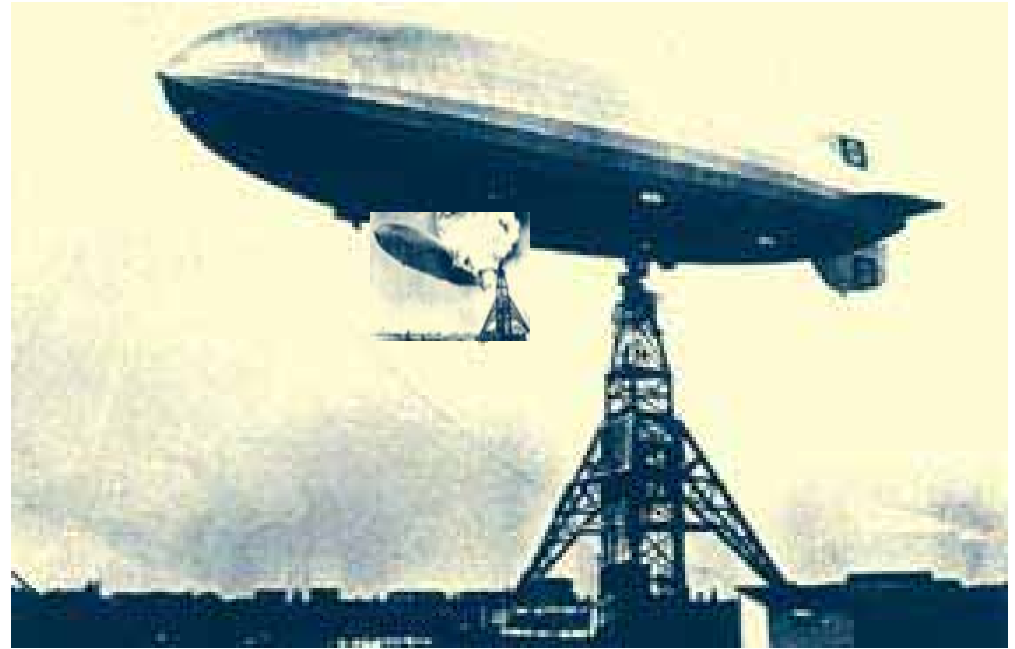
“Hydrogen is very dangerous”





# Learning From Others

## The Hydrogen Economy





# Learning From Others

## The Hydrogen Economy



Photo 1 - Time: 0 min, 0 sec - Hydrogen powered vehicle on the left. Gasoline powered vehicle on the right.



# Learning From Others

## The Hydrogen Economy



Photo 2 - Time 0 min, 3 seconds - Ignition of both fuels occur.  
Hydrogen flow rate 2100 SCFM. Gasoline flow rate 680 cc/min.



# Learning From Others

## The Hydrogen Economy



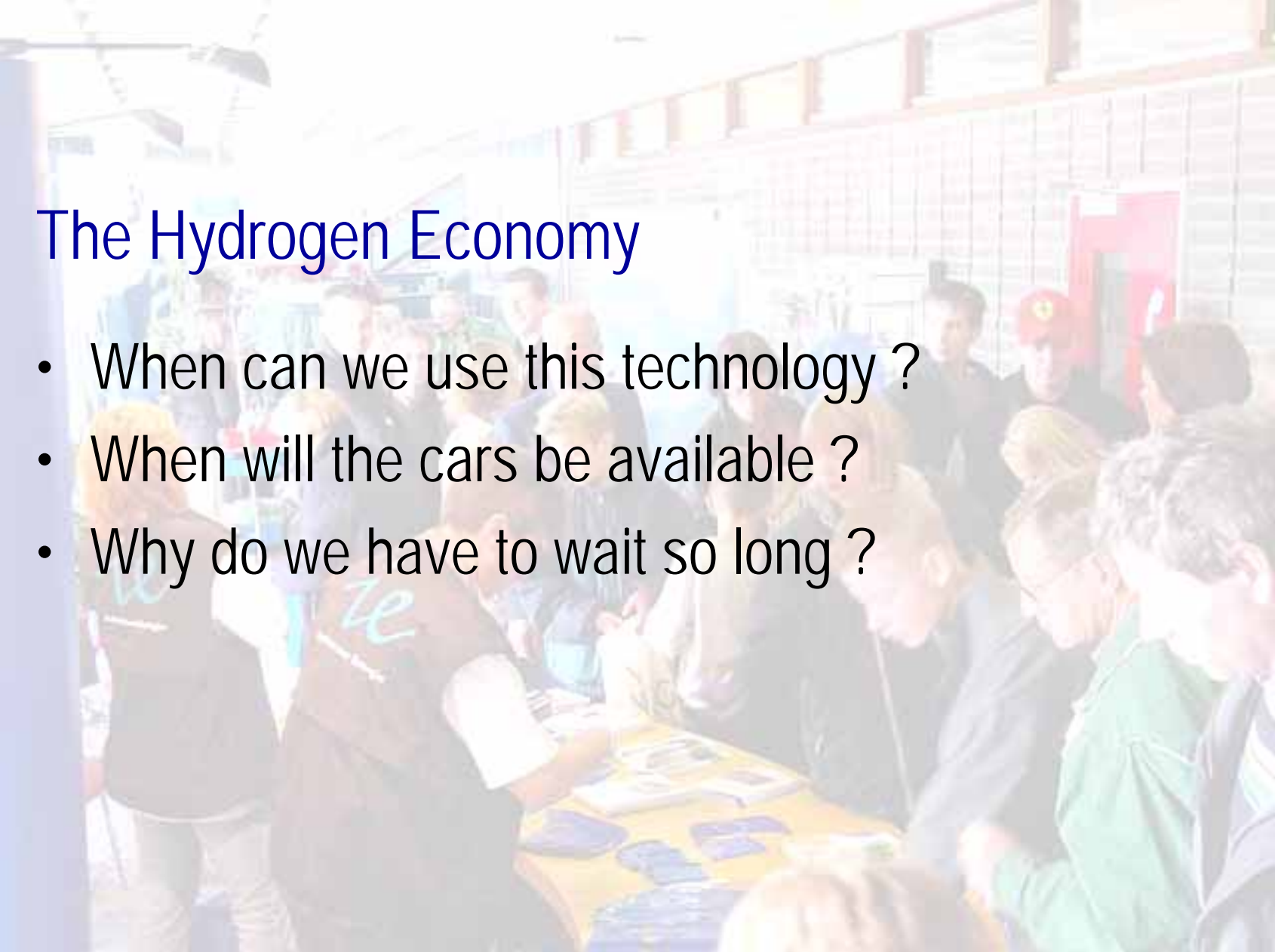
Photo 3 - Time: 1 min, 0 sec - Hydrogen flow is subsiding, view of gasoline vehicle begins to enlarge





## The Hydrogen Economy

- When can we use this technology ?
- When will the cars be available ?
- Why do we have to wait so long ?



# Communication Innovation

“ thinking out of the box ”

- What happens in the operating theatre when the wind drops or it's a typical cloudy day.





# Learning From Others

The Hydrogen Economy

Need to look around us

When the lights go out-BBC dramatised documentary

John de Mol, "what interests different ages /social classes"

Are we making people think , World food Programme  
"donate your dessert"

# Communication Innovation

“ thinking out of the box ”



## Innovative communication

“Tailor the language, education, science understanding”

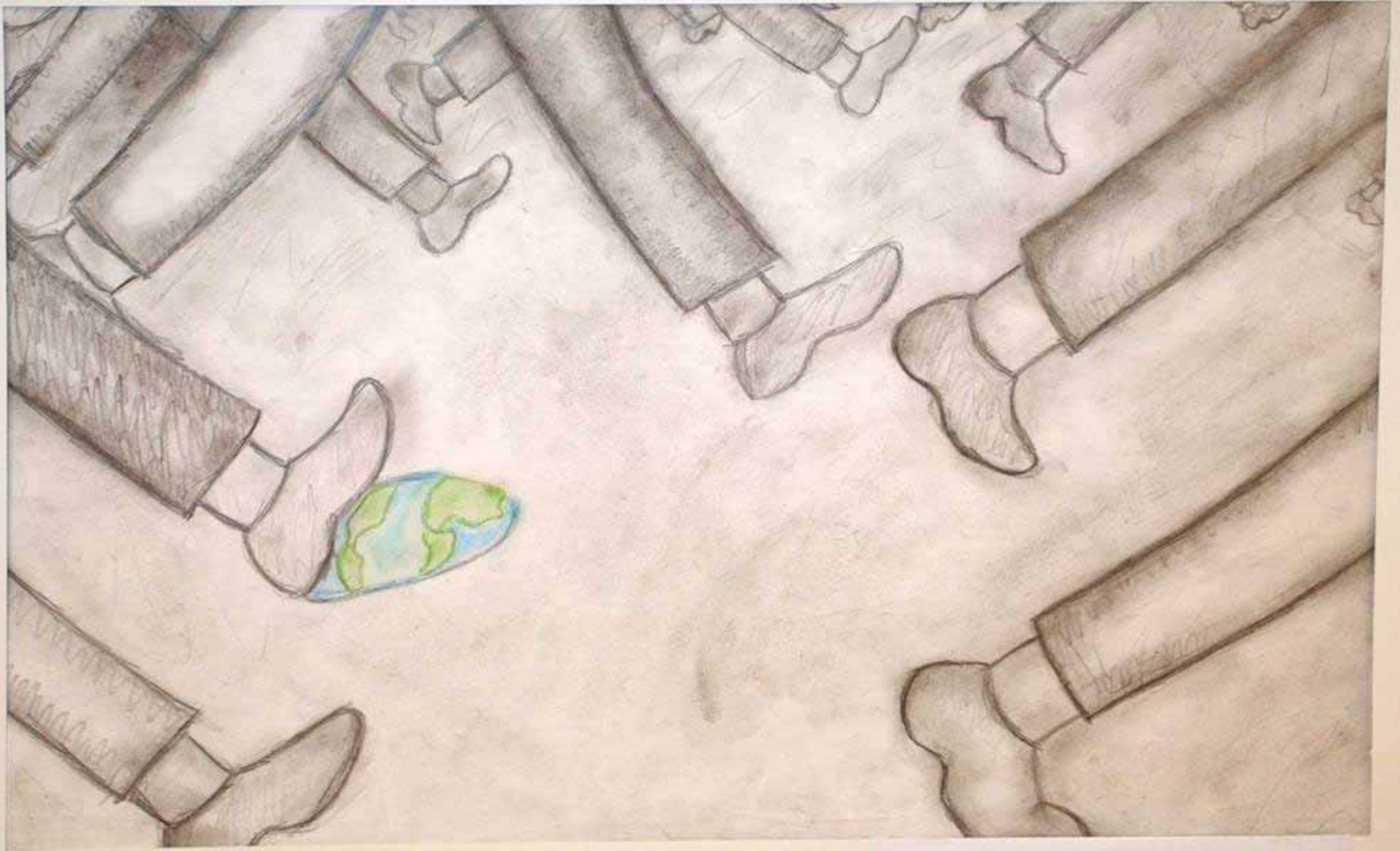
- Nuclear /Nuclear research
- Complex = lack of understanding = DANGEROUS
- Visual simplification
- Need to move from a monologue to a dialogue
- Need to understand the concerns of the audience.



## Clean Energy Art Competition

- 2-way communication
- Monologue to Dialogue





Copper  
Stephan  
17

What I tried to show on this drawing is that nobody really cares about what's going to happen to the world. I used dark colors for the legs and bright colors for the world to show the distinction between what is important and what is not.



Small white caption card with illegible text.



Small white caption card with illegible text.



Small white caption card with illegible text.



Small white caption card with illegible text.





## Innovative communication

Tailor the language,  
education, science  
understanding

Nuclear research is  
always so complex....  
For the first time I can  
grasp the different  
concepts “

Member of the European Parliament





**B** Nuclear waste



**C** Research & training



**D** Cancer treatment





Need to be critical

$$E = MC^2$$



The Core and the apple peel Björn Wahlström



# Communication Innovation



# Innovative communication

- Current energy advertising
- Public perception ?
- Plentiful supply of Green energy for each household
- Increased energy use ?
- Need to react to this misleading information

Silence = concur

(EPZ)

# De tien grootste bezwaren in perspectief

Het lijstje met bezwaren tegen kernenergie is al decennia lang hetzelfde. De top tien varieert een beetje, zo is de afgelopen tijd 'terrorisme' met stip gestegen. Maar nieuw is dat thema niet, in 1977 al maakte Robert Jungk internationaal furore met zijn boek "Der Atom-Stat". Daarin voorspelde hij dat Duitsland een politiek staat zou worden om atoomterrorisme te weerstaan. Jan Terlouw schreef het voorwoord voor de Nederlandse vertaling. De atoomstaat is er intussen niet gekonnet zo min als de atoomterreur. Dat wil niet zeggen dat zorg om gevaren van kernenergie altijd onterecht is. Er valt wel veel af te dingen op de geschetste enonn van de risico's. Het kennen van de gevaren en het bespreken ervan is een eerste stap naar het veilig er mee omgaan. En daar gaat het om: niet het ontkennen van gevaren, maar het beheersen ervan.



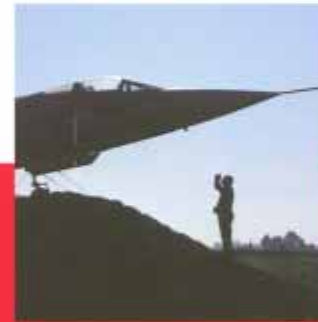
**"Er is geen oplossing voor kernafval dat 240.000 jaar gevaarlijk blijft"**

In gebruikte splijtstofstaven zitten gevaarlijke radioactieve stoffen. Zesennegentig procent hiervan wordt via opwerking hergebruikt als nieuwe splijtstof. Slechts vier procent is onbruikbaar en gevaarlijk afval. Dit wordt zorgvuldig verpakt.

De splijtstof van de kerncentrale Borssele over de afgelopen dertig jaar heeft slechts enkele tientallen kubieke meters van dit hoogradioactieve afval opgeleverd. Het volstaat dit op te bergen achter een dikke muur van beton, terwijl intussen de radioactieve straling vermindert door natuurlijk verval. Dat is wat we in Nederland op dit moment er mee doen: isoleren en veilig beheeren.

Voor de middellange termijn een goede oplossing bestaat, ook wetenschappelijke consensus over de lange termijnoplossing bestaat uit

het opbergen in diepe ondoordringbare aardlagen. We weten dat bepaalde aardlagen al miljoenen jaren stabiel zijn. De acceptatie van een geologische berging is vooral een maatschappelijk vraagstuk.

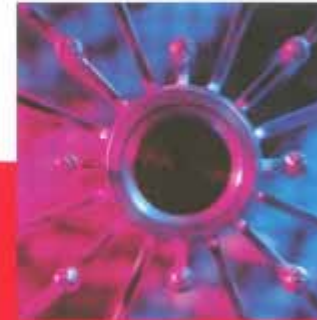


**"Kernenergie is inherent onveilig"**

Absolute veiligheid bestaat niet. Er gebeuren regelmatig natuurrampen en industriële ongelukken in de wereld. Een kerncentrale bevat gevaarlijke radioactieve stoffen waarvan we niet willen dat ze in de omgeving terecht komen. Om die reden zijn kerncentrales zo ontworpen en worden ze zo geëxploiteerd, dat er altijd vele barrières zijn die verhinderen dat radioactiviteit ontsnapt.

Dat dit werkt, bewijst de praktijk. De 441 draaiende kernenergiecentrales in de wereld hebben al zo'n twaalfduizend jaar ervaring opgebouwd in 32 verschillende landen. In die twaalfduizend jaar is er één ongeval geweest waarbij er doden zijn

gefallen door vrijgekomen radioactieve stoffen, namelijk in Tsjernobyl (1986). Daar zijn tientien slachtoffers gevallen, inclusief negen kinderen die aan schildklierkanker overleden. Dat had overigens met jodinepillen voorkomen kunnen worden. In de kerncentrales die in onze westerse landen in bedrijf zijn, is zo'n ongeval niet mogelijk en is ook in duizenden bedrijfsjaren nooit voorgekomen. Natuurlijk gebeuren er incidenten en worden er fouten gemaakt, zoals overal, leidt niet tot burgerslachtoffers.



**"Uraniumwinning is zeer vervuulend de voorraden raken op"**

Al vijftig jaar wordt gemeld dat over dertig jaar de bekerde voorraad uranium op is. En dat ook zo. Uranium is in de aardkorst niet zeldzaam en het raakt niet op, er is voor vele eeuwen voldoende voorhanden. Uranium is nu net zo duur als in 1980. Als in de toekomst de prijs stijgt, zal er meer naar uranium gezocht worden. Dus nemen de wij

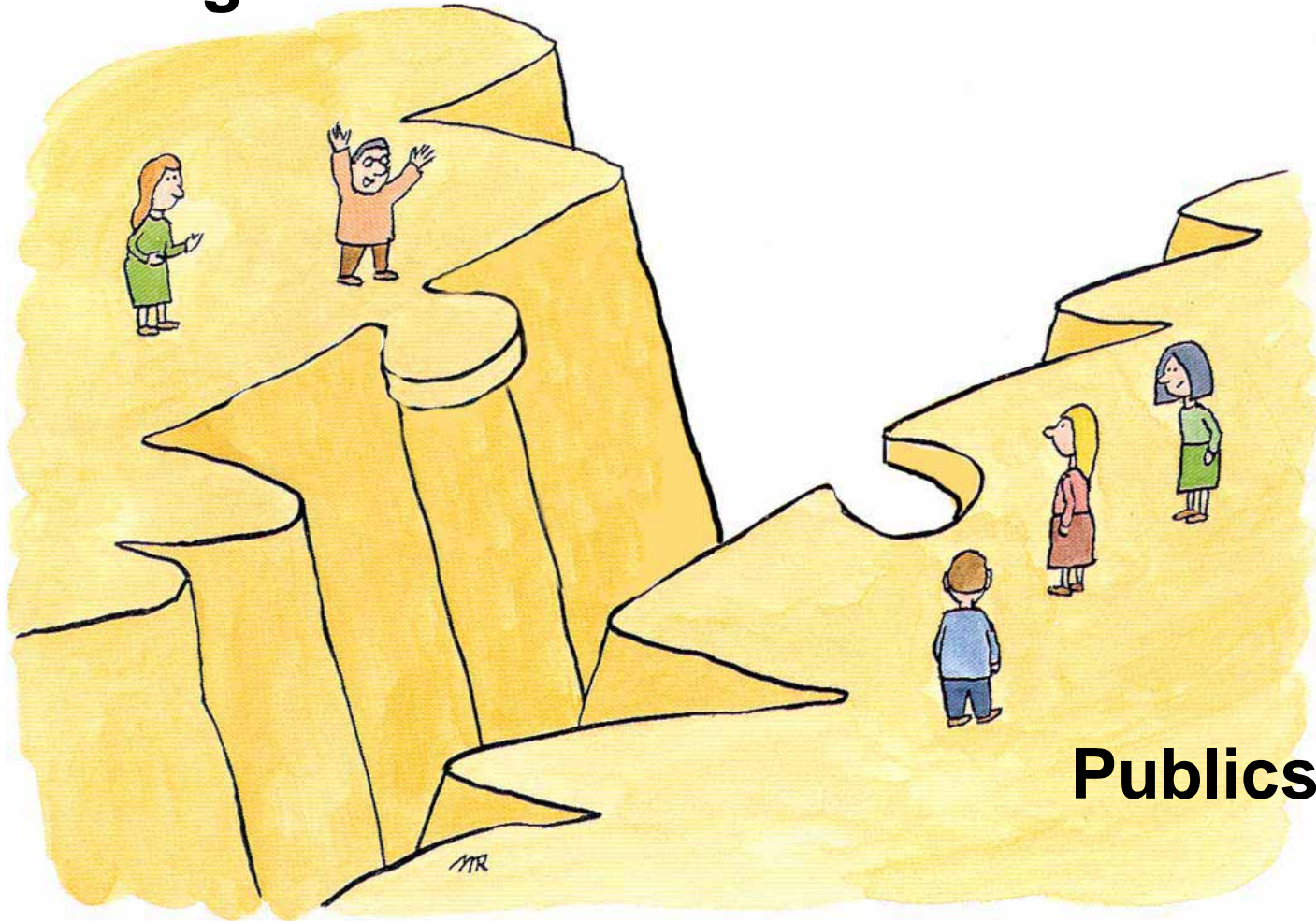
- Share Best Practices
- Focus valuable manpower
- Share resources

*"We are all in one boat"*



# Bridging the gap

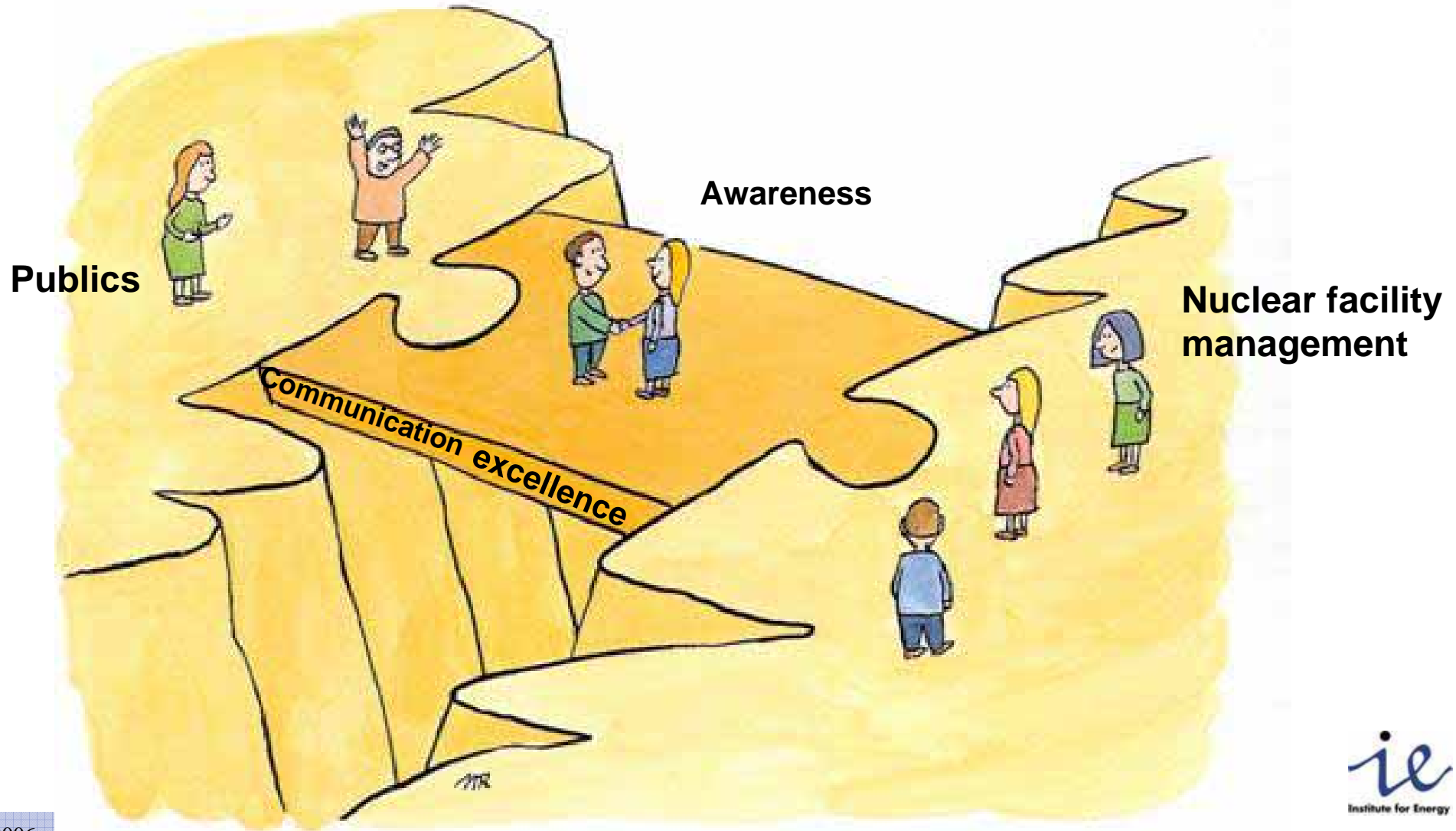
## Nuclear Organisation







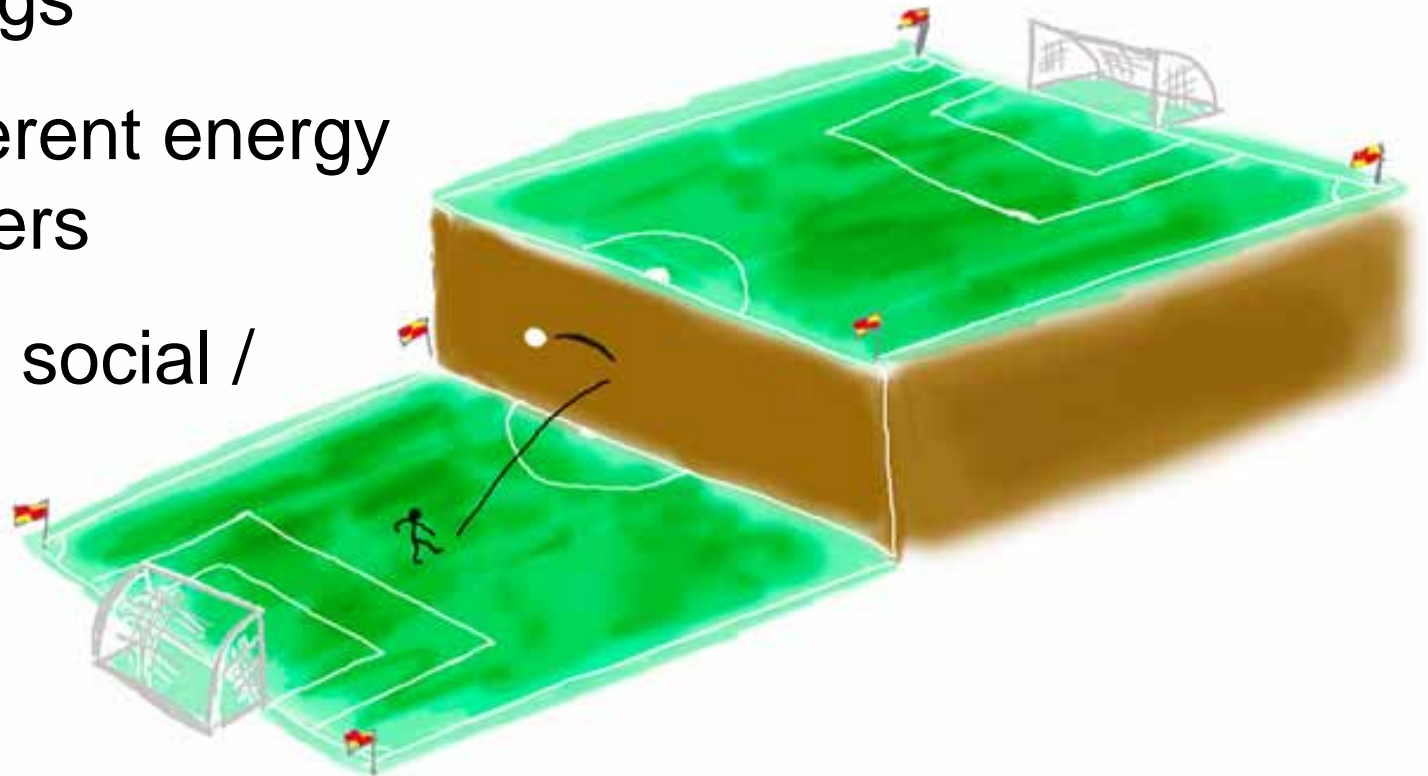
Communication is not simply about sending messages; it is about creating and sharing a meaning





# Conclusions

- Create a level playing field for energy issues
- Security of energy supply
- CO<sub>2</sub> emissions
- Energy savings
- Merits of different energy sources /carriers
- Fundamental social / energy needs



# Conclusions

The background of the slide is a composite image. On the left, a hand holds a white electrical plug with two silver prongs, pointing it towards the right. On the right, the Earth is shown from space, glowing with city lights and surrounded by several bright white lightning bolts. The background is a dark starry sky with a few bright stars.

- Share best practices
- Use 2-way communications
- Learn from other industries /sectors, we are not alone
- Create awareness for the real imminent energy needs of society