Webinar Series on **Stakeholder Involvement** related to **Nuclear Power**

IAEA

#8

Design & Tools for Engagement

Inspiring Audiences through Visuals, Games and More

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Inspiring Audiences through Visuals, Games and More

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#1 Basics of Stakeholder Involvement
#2 Public Surveys
#3 Public Information Centres
#4 Social Media
#5 Messaging, Storytelling, Plain Language
#6 Media Relations
#7 Crisis, Risk & Emergency Communication

www.iaea.org/si-webinars

Lisa Berthelot
Stakeholder Involvement Officer
IAEA Division of Nuclear Power

Learning Objectives

The objectives of this webinar are to:

- Recognize the importance of powerful visual communication tools
- Understand the different visual and tactile medium that can be used to engage effectively with audiences
- Develop ideas on how to integrate new designs and tools into NPP stakeholder engagement programmes

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Today's Speakers

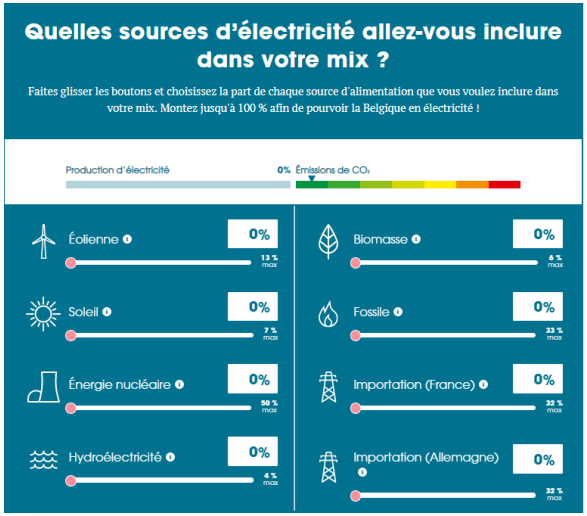
Laura Escribano

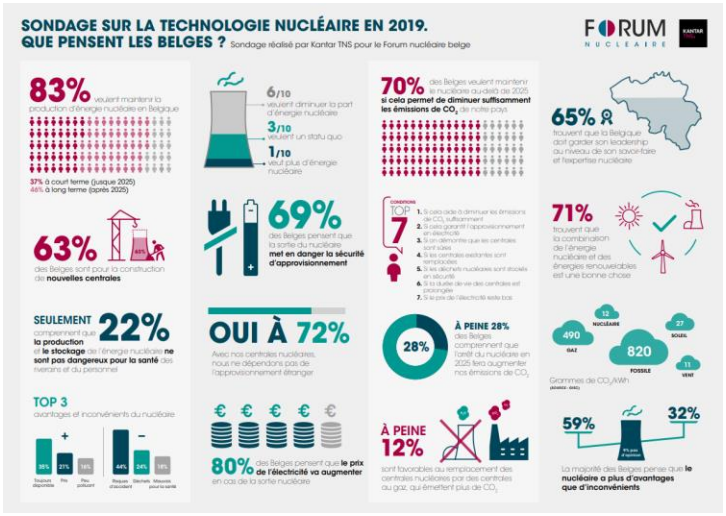
Alicia López

Janice Lindegard

An Coppens

- Different types of communication





#8 Design & Tools for Engagement

Inspiring Audiences through Visuals, Games and More

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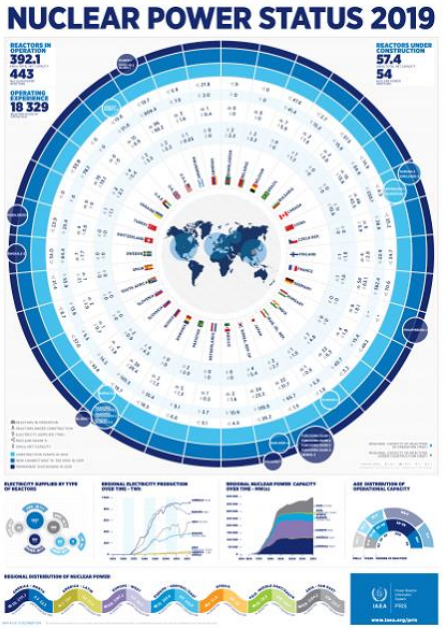
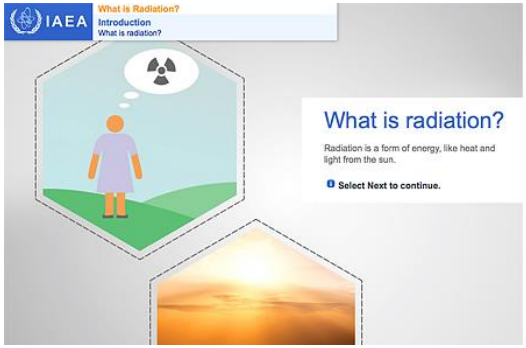


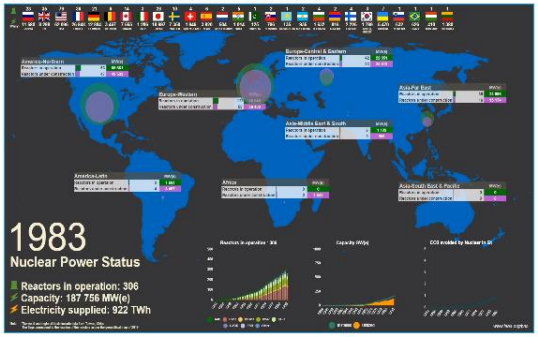
Create your Future Me

Use your creativity to design an avatar of your future self in your dream career. Will you be a robotics engineer, architect or software programmer? The choice of STEM careers is unlimited! Share your avatar to help pass on the inspiration.

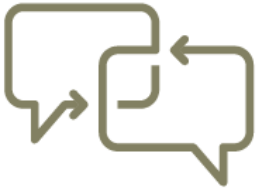
Build my Future Me



Nuclear Power History and Capacity Projections Video



Let's interact



Where do you work?

- Government
- Regulator
- Operator
- NEPIO: Nuclear Energy Programme Implementing Organization
- Technical Support Organization
- NGO
- Academia
- Research Institution
- International Organization
- Media
- Private Sector-non-nuclear
- Nuclear Advocate/Independent Advocate
- Other
- I prefer not to say

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Today's Speakers

Laura Escribano

- Director of Communication Department at Foro Nuclear, the Spanish Nuclear Industry Forum in Madrid, Spain
- Responsible for online and offline communication strategy, organization of events, conferences and presentation of publications, press relations and trips to nuclear sites with journalists
- Bachelor's Degree in journalism at the University of Navarra and Specialization Course in Corporate and Institutional Communication at the Complutense University of Madrid
- Over sixteen years of experience in corporate communication
- Receives ongoing training on social networks, protocol, event organization, spokesperson courses, crisis communication, lobbying…

Alicia López

- Communications technician at Foro Nuclear
- Responsible for translating and updating the Association's English website and other documentation, graphic design, creation of infographics, graphic and video content for social networks
- Dispatches documentation to website readers and people interested in the Association's publications
- Experience in nuclear communication and graphic design for the past 7 years, previously secretary to the President of the Association, with responsibilities involving administration, corporate relations and agenda management
- Bachelor's Degree in English Literature at the University of Guelph, Canada
- Several courses and specializations in graphic design and translation

Design & Tools for Engagement: Infographics

Laura Escribano Úcar & Alicia López Alonso
Communication department

IAEA Webinar on Stakeholder Involvement Related to Nuclear Power
March 2nd, 2021

Foro Nuclear
Foro de la Industria Nuclear Española

Design & tools for engagement: Infographics

1. New ways to communicate
2. Some visual examples
3. Channels for communication with infographics
4. Some tips and advice

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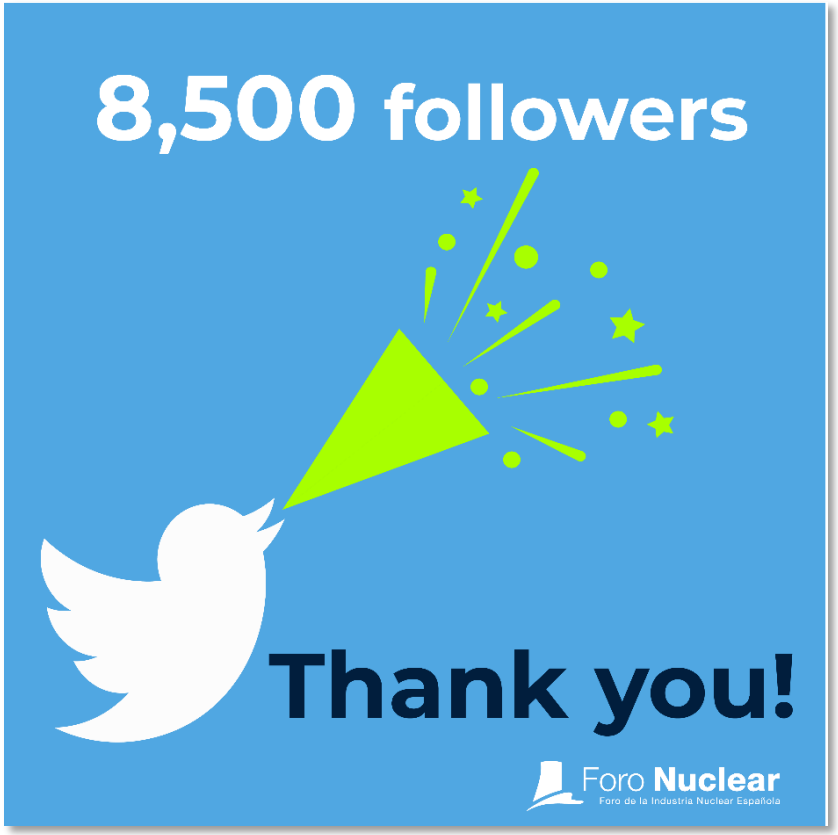
1 New ways to communicate

- We needed to find **new ways to communicate** with our stakeholders
- We had **lots of information to share**
- Already used all **traditional** ways to communicate
- **10 years ago we opened our first social media** (Twitter)
- Social media is highly linked to **visual communication - INFOGRAPHICS**



1 New ways to communicate

- It was key for many of our stakeholders to **simplify the message**
- Our world is becoming **increasingly visual**
- We had **to be more creative and visual**
- **Less technical** without losing scientific perspective
- **INFOGRAPHICS** are a **good way to communicate and educate, through:**
  - Website, newsletters, publications and, of course, social media!

2 Some visual examples

- It was key for many of our stakeholders to **simplify the message**
- Our world is becoming **increasingly visual**
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2 Some visual examples

Infographics are an effective way of **presenting information**. They help the audience understand, digest and process information

Facts:

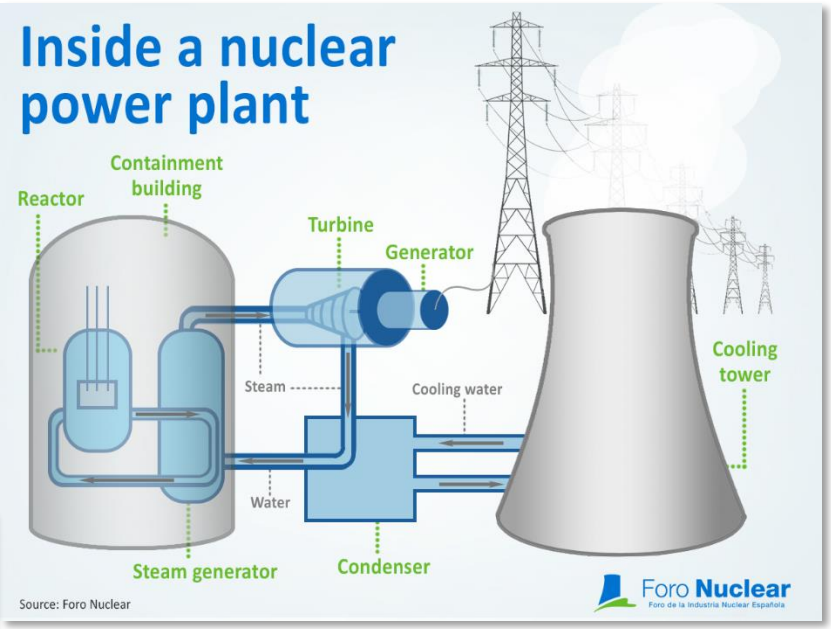
- **90% of the information received by the brain is visual**
- **60% of what we learn comes to us as images**
- **The brain processes visual information 60,000 times faster than text!**

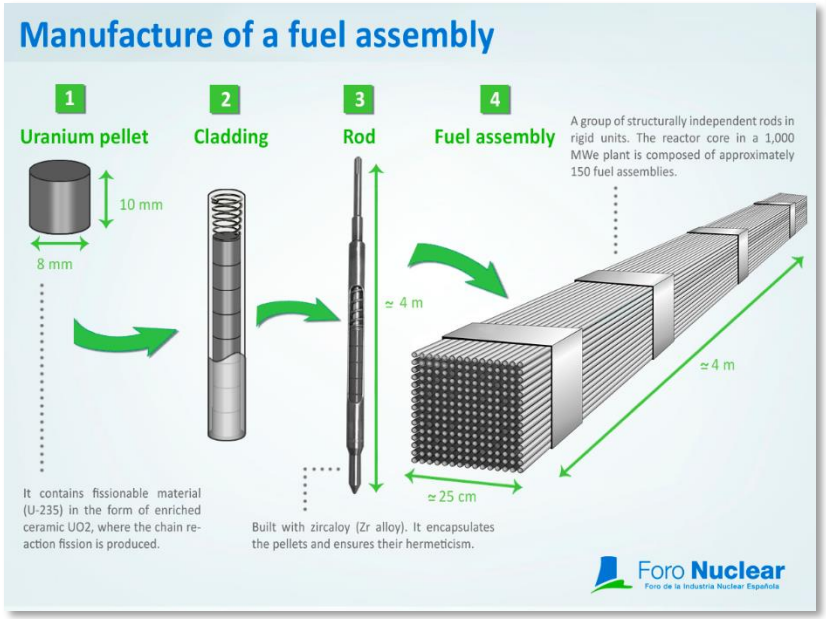
We are continuously bombarded with visual and textual information, it must be arranged in such a way that it **informs and sends the message without being tiring or overwhelming**

2 Some visual examples – Technical infographics

Technical infographics are challenging, but very helpful!

- **Visualizing and explaining** the basics of the technology in **a clear and accesible way** is very helpful to the public

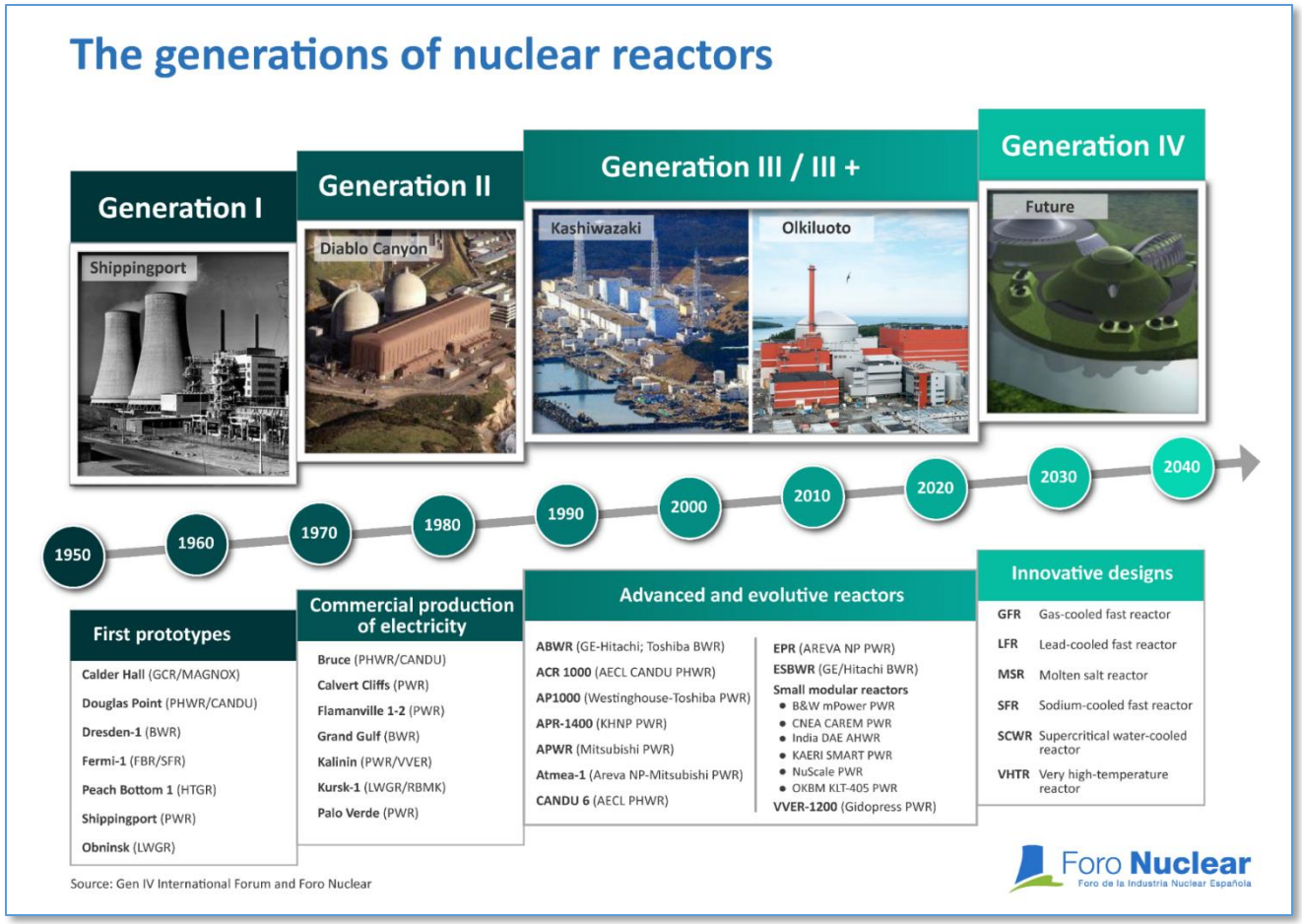




These graphics can be downloaded and shared to generate an audience

2 Some visual examples – Technical infographics

Sometimes, you will need to include **a lot of information**

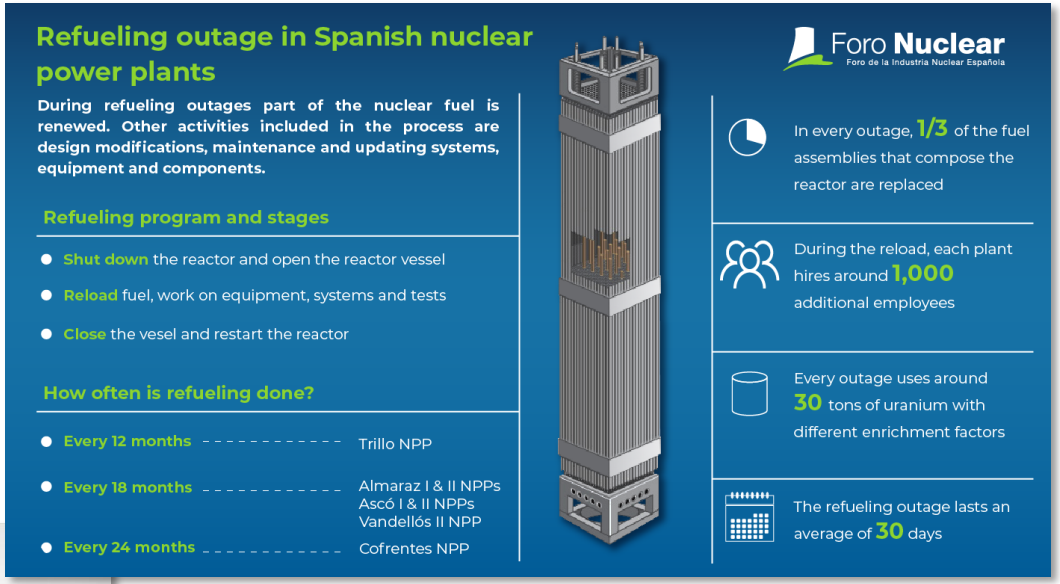


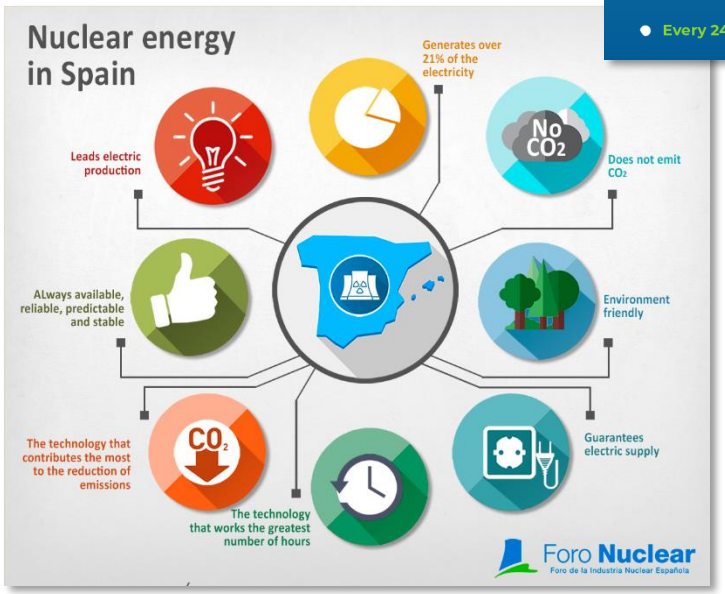
Key factors:

- Images
- Colours
- Visually arrange the information

2 Some visual examples – Aspect ratios

Rectangular (horizontal or vertical) for website, Facebook, newsletter, publications…

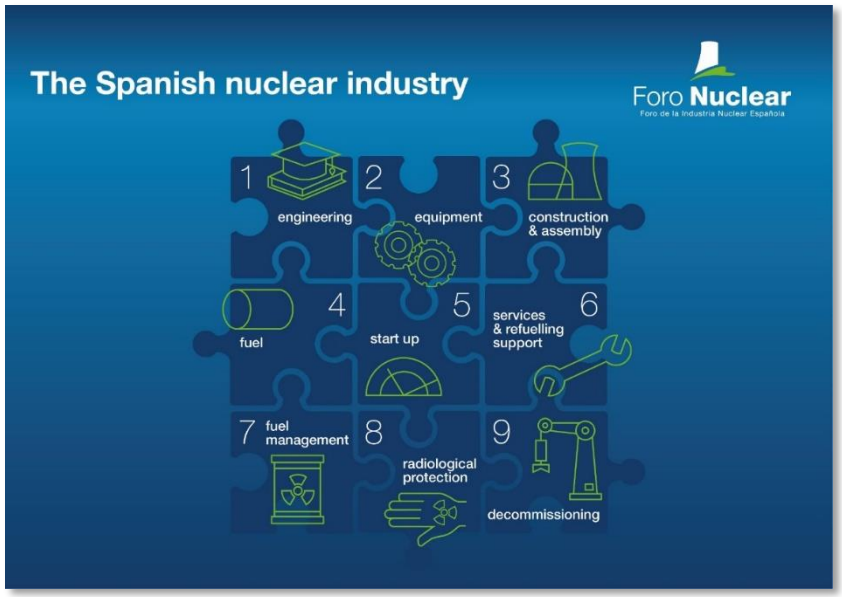


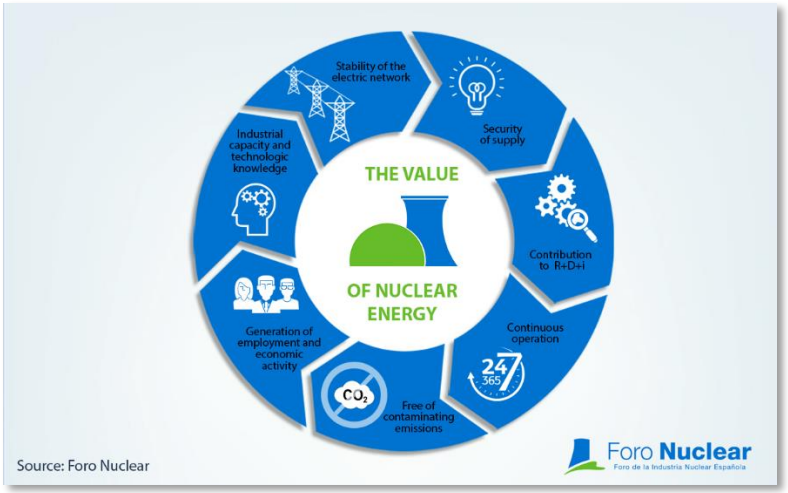


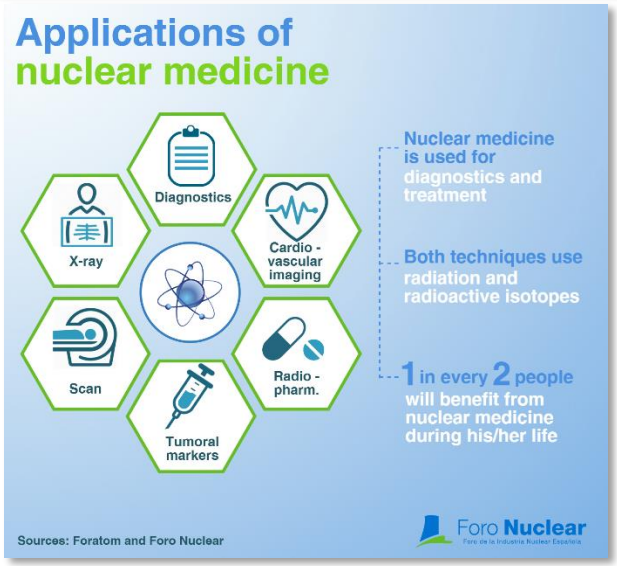
Square for Instagram, Twitter, other social networks

- You can use rectangular, but square format is preferred and fits better
- **Facebook** posts can be square too, it's the most versatile

2 Some visual examples – Icons and symbols



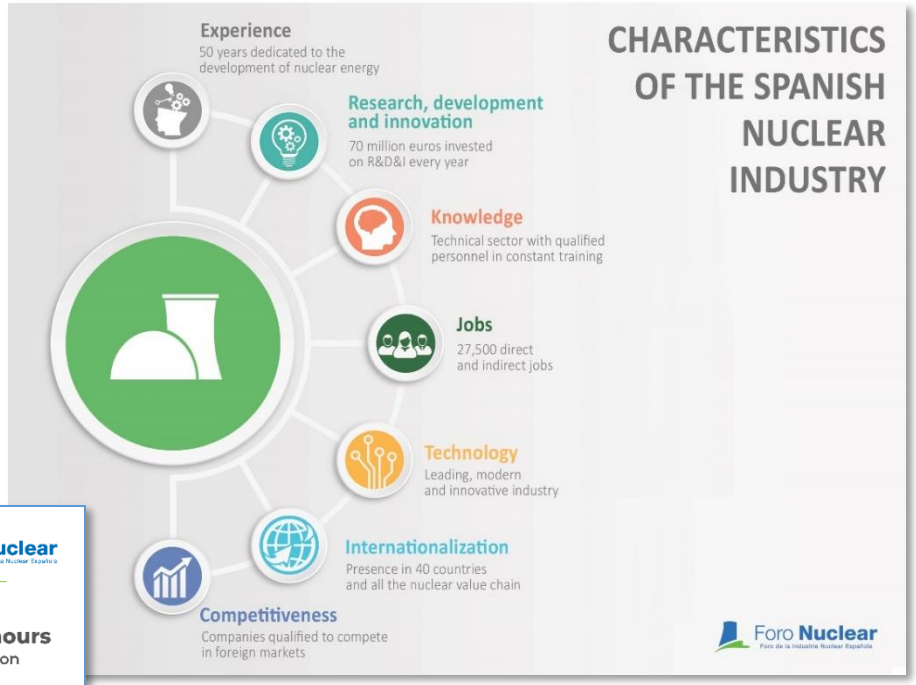


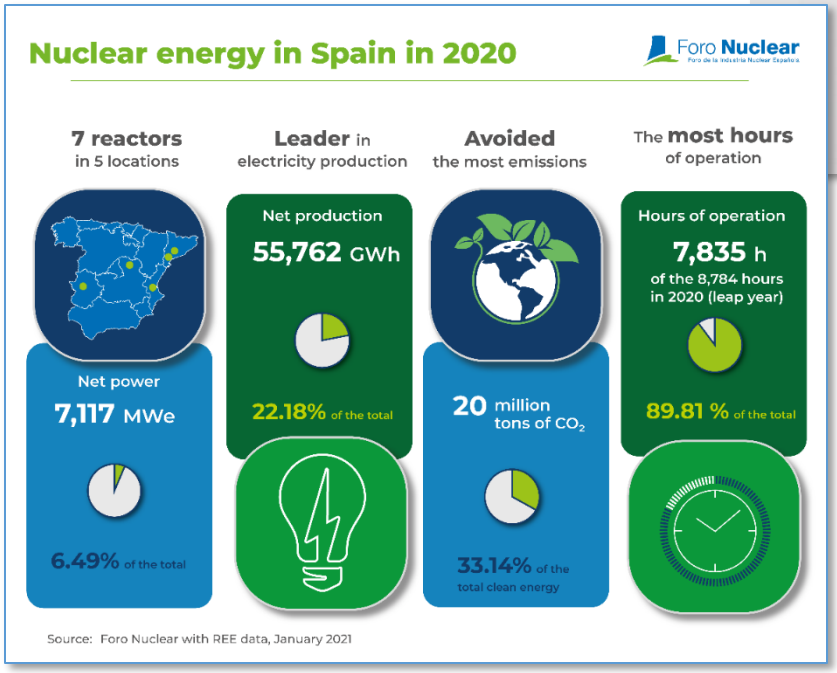


- Use **intuitive symbols and icons** to convey messages
- Most icons are **universally recognizable**

2 Some visual examples – Data and layout

Use a **visually coherent layout** for the different sections and points you want to bring across.





And make your numbers visual!

Make sure numbers and data stand out

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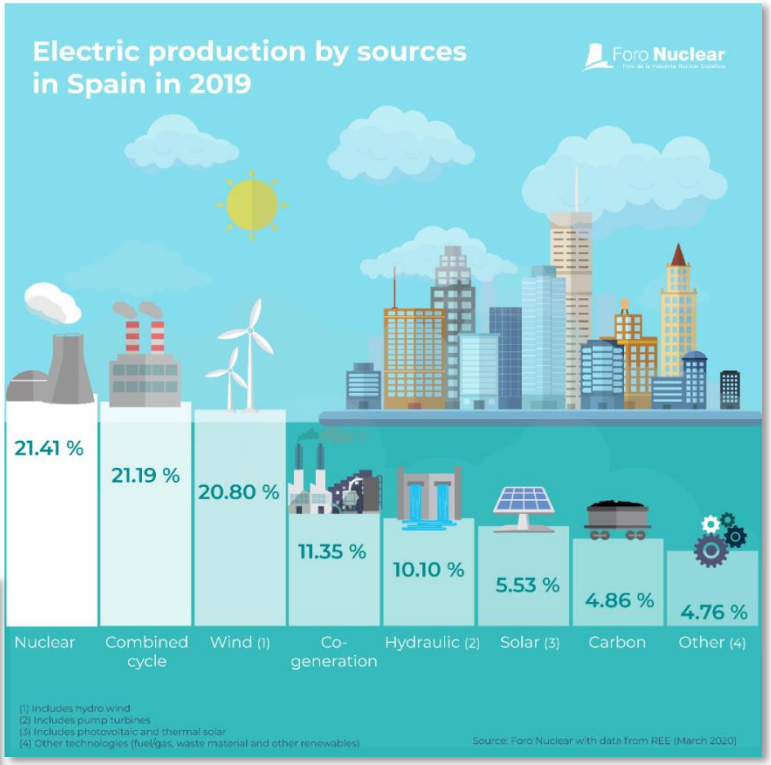
2 Some visual examples – tap into emotions

Don't be afraid to be cute!

In nuclear the subject matter is very technical. Sometimes it's a good idea to use **visual elements that are not too technical and engage emotions**



Good for schools, students…

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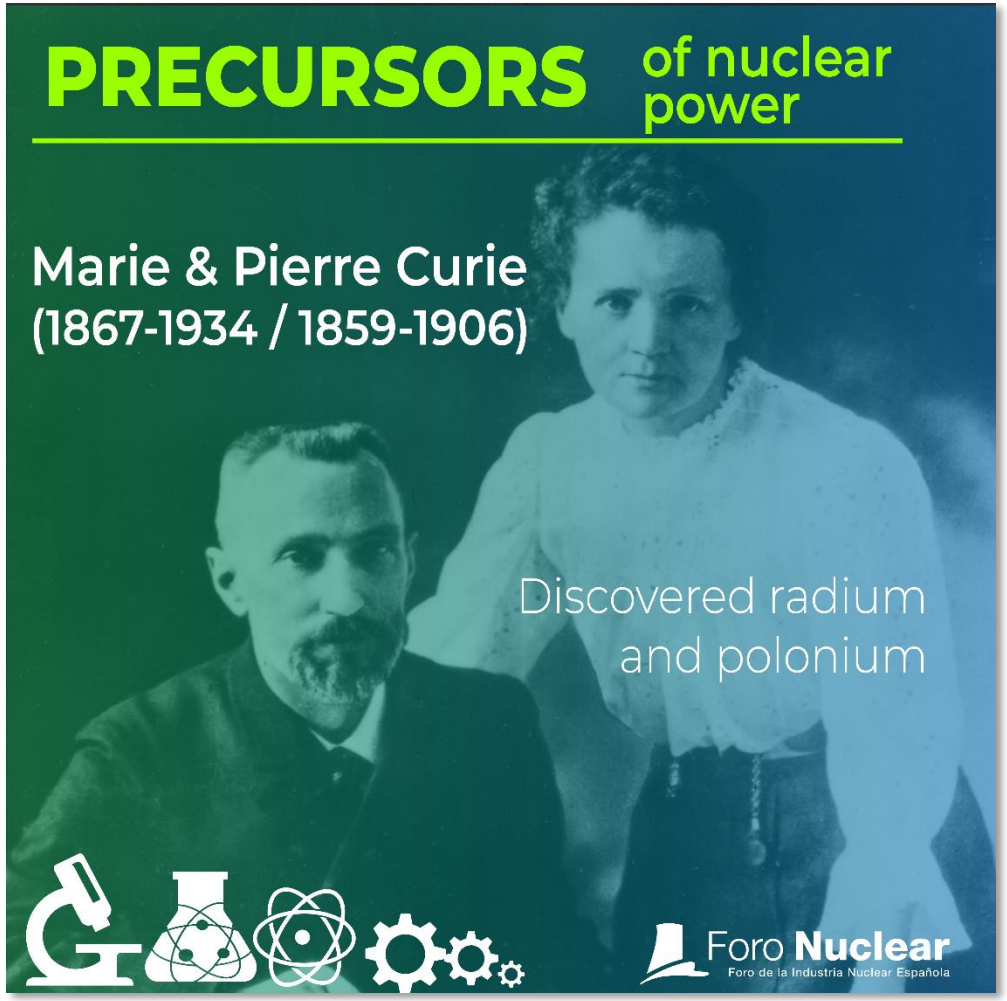
2 Some visual examples – snippets and series

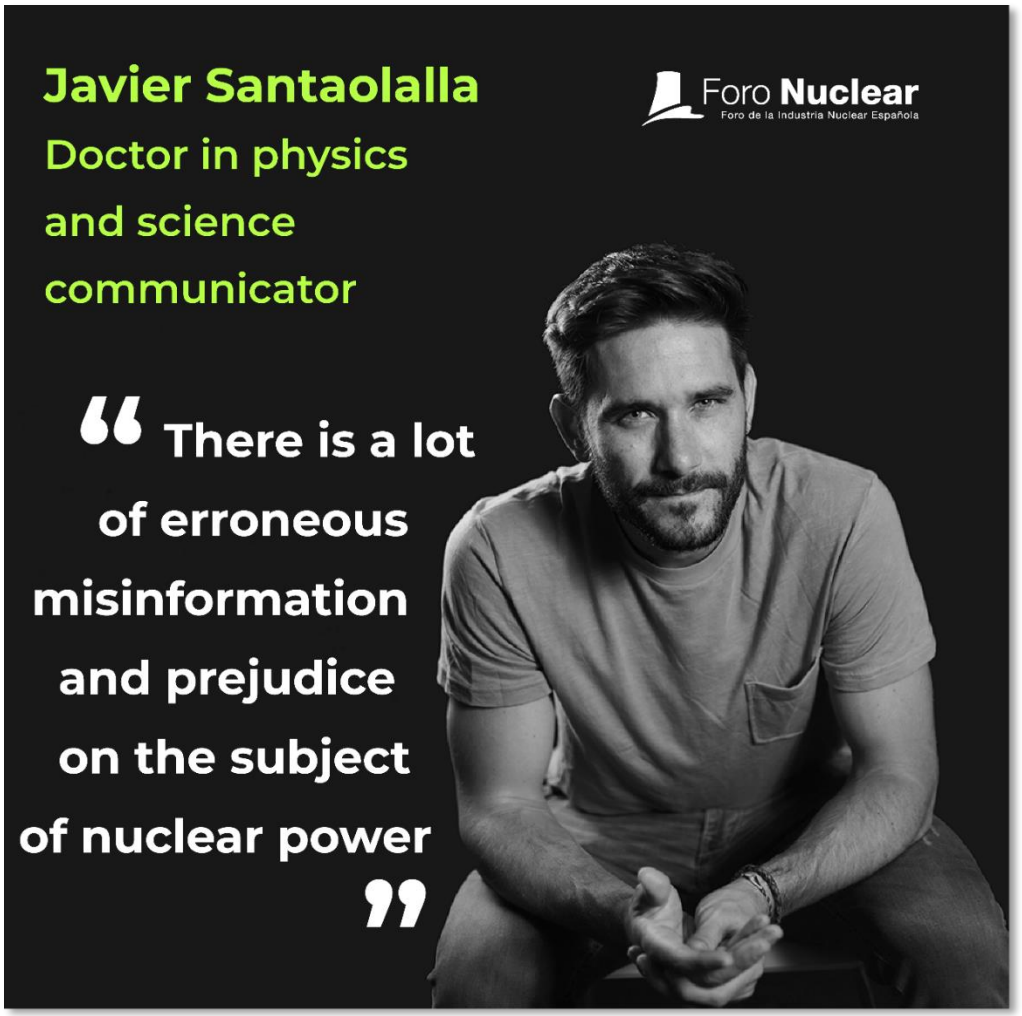


Other less complicated ideas with pictures – **information snippets**

Creating informative series (like “Precursors” here) is a good way to engage the public and **generate expectation**

Einstein, Rutherford, Becquerel….

2 Some visual examples – snippets and series

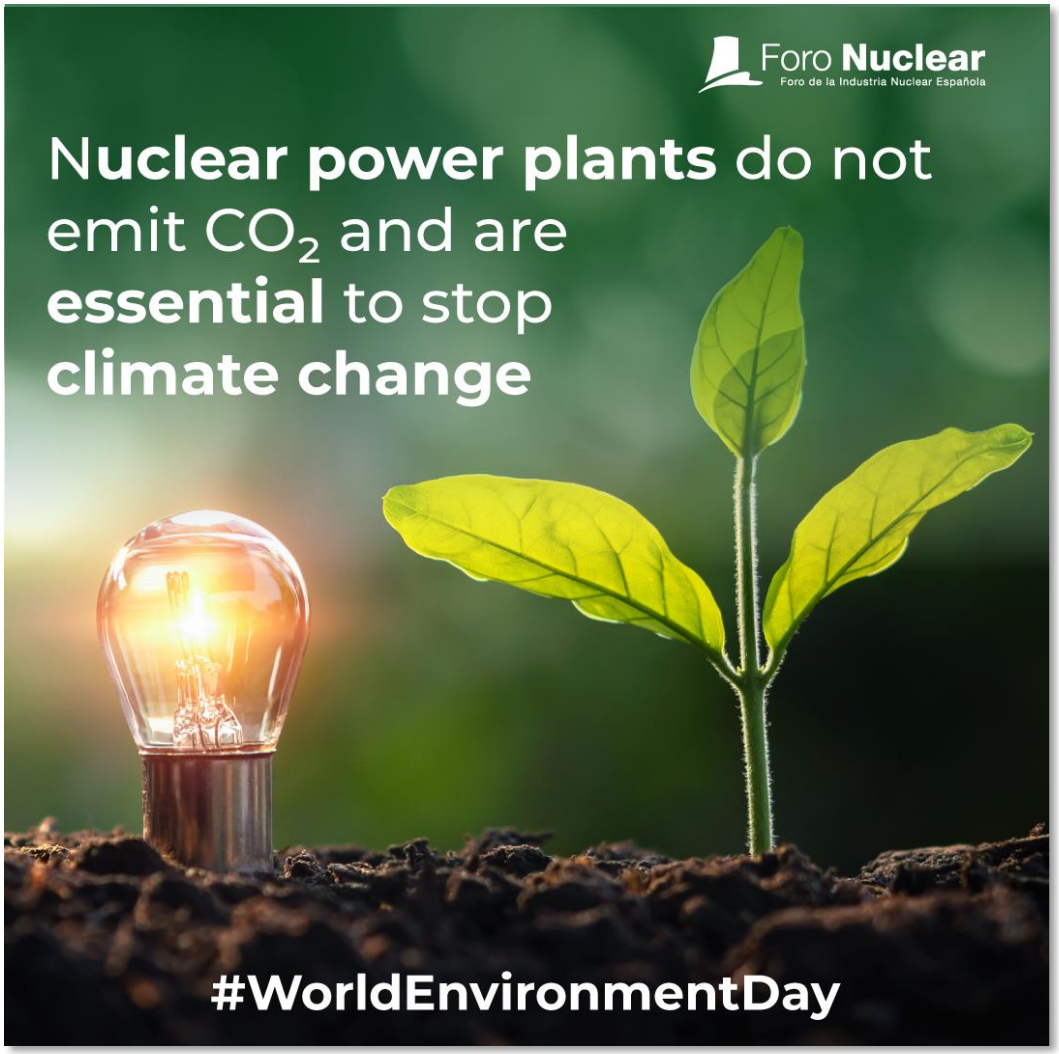


Takeaway messages from interviews with **relevant experts** from the nuclear sector

Other people speak in favour of nuclear power, not just us

Physicists, doctors, communicators…

2 Some visual examples – snippets and series



Using special commemorative dates to share our message and engage the public, creates sense of community, relatability and awareness

- World Environment Day
- World Earth Day
- Energy Efficiency Day
- World Health Day
- Etc…

3 Channels for communicating with infographics

Twitter, Instagram, Facebook, website, newsletters…

- Don’t forget to **share!**
- Use **social media**, newsletters, publications, website…
- **With links to more information** and to get more visits!

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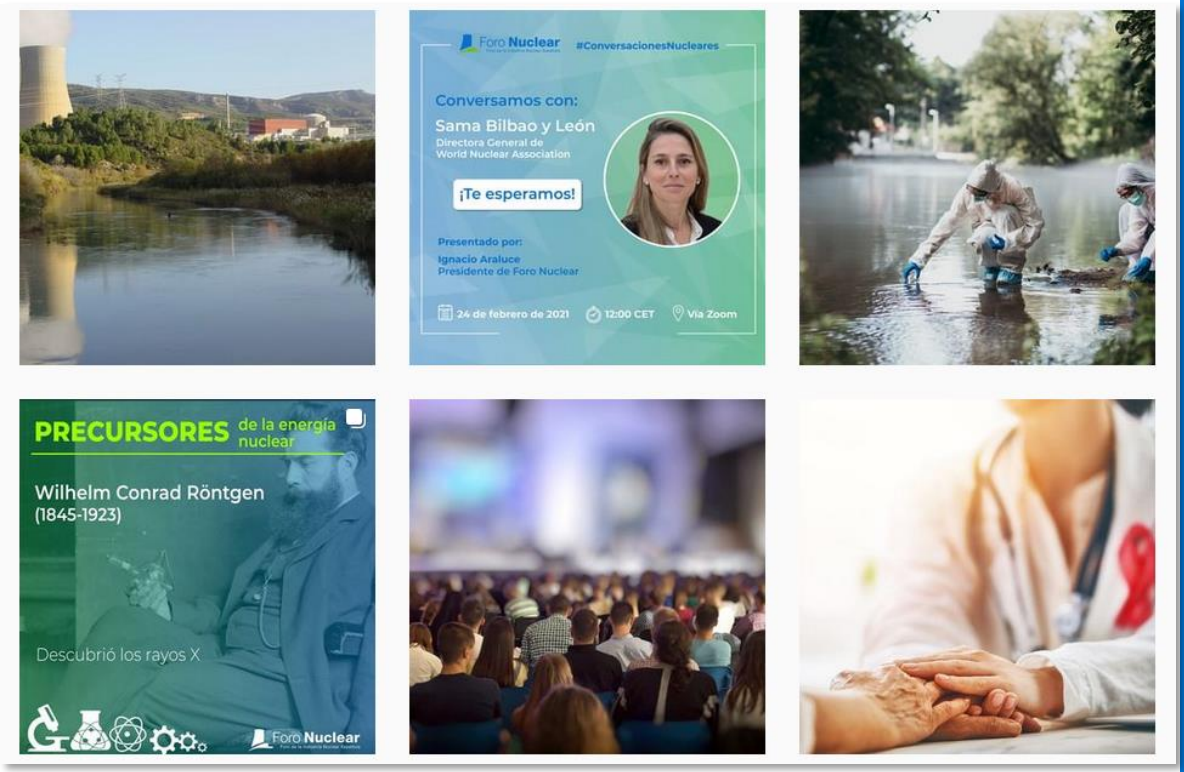
4 Some tips and advice

Twitter, Instagram, Facebook, website, newsletters…

- Create **infographics related to your key messages** and strategy
- If possible, **do it internally**
- Have **good quality images** and pay for them



4 Some tips and advice – tools and resources

Design:

- Software: Adobe Photoshop and LightRoom (for image editing, graphics, photography)
- Adobe Illustrator, InDesign for vector image edition and layouts (infographics and publications with infographics)
- Other vector art software: Corel Draw, Affinity… (less powerful but with good potential)

Online design tools:

- Visual.ly
- Piktochart

You can use them to make infographics online, with templates, examples and many resources.

Image Banks:

- Free: (Freepik, Pixabay) – free but must give credit
- Paid: Adobe Stock (we use this one), Istock, Shutterstock

4 Some tips and advice

- Keep your message **in sight** at all times
- **Learn from the best** (many examples on Internet). **Don't be afraid to copy ideas!**
- Choose the **right images** and use them to illustrate your messages
- **Be creative**, use tutorials and do "refresh" courses whenever possible

4 Some tips and advice

Lastly… remember these four important rules:

- **Be simple**, don't overuse images and text, not too many colours, make sure there is "breathing room"
- **Be universal**, unbiased, accessible, use recognizable icons and imagery everyone can understand
- **Be original,** visually compelling
- Don't forget to add your sources and your logo, and **don't forget to share it!**

Thank you!

www.foronuclear.org/en
www.rinconeducativo.org

comunicacion@foronuclear.org

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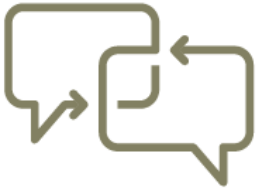
Let's interact



If you had to pick just one, which learning or engagement tool would you choose?

- Infographics
- Games
- E-learning
- Newsletter
- Website
- Press conference
- Social media
- Interactive video
- Quiz
- Chatbot
- Classroom training/conference

Today's Speakers

Janice Lindegard

- Program Specialist for the American Nuclear Society.
- Responsible for development, management and execution of education programs reaching students, teachers, and the public.
- BA from the University of Illinois and MAT from National Louis University.
- Illinois State teaching certificate with endorsements in Language Arts, Science, and Social Science in 2009.
- Prior to teaching, Janice worked in public relations representing major consumer brands.

IAEA Design and Tools for Engagement: Inspiring Audiences through Visuals, Games and More

March 2, 2021

American Nuclear Society Education Initiatives

Janice Lindegard
Program Specialist
American Nuclear Society

Programs

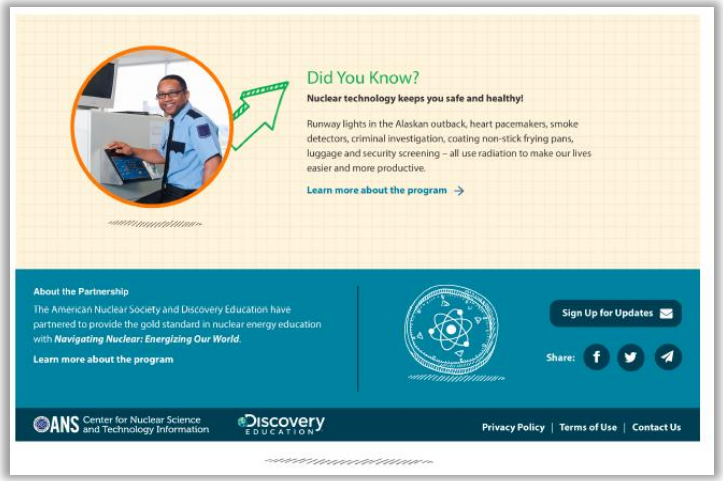
- Navigating Nuclear
- About Nuclear
- Educator Workshops
- Member outreach

Outreach Goals

- **Clarify common misconceptions** surrounding nuclear science and explore its current and future role in technological applications
- **Build understanding** of and create value for nuclear science and technology
- **Inspire future careers** in the nuclear field – and the pursuit of higher education to achieve this goal

Navigating Nuclear: Energizing Our World™

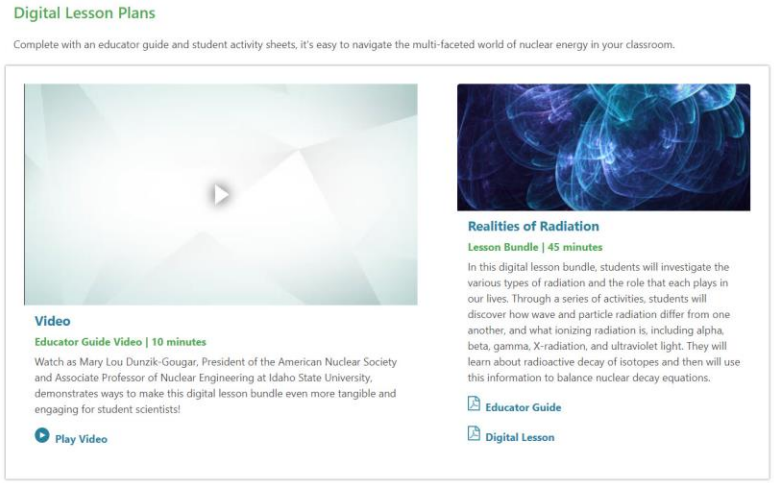
- FREE curricular materials
- Platform neutral
- Elementary, middle, and high school resources
- For students, educators, parents, and the public
- navigatingnuclear.com



Digital Lessons

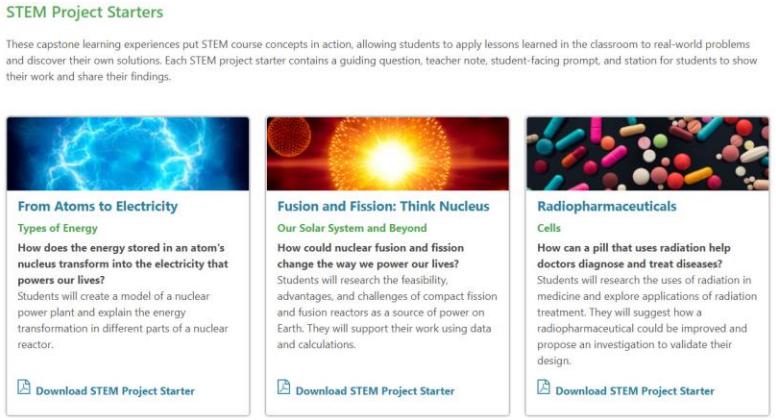
Grab and Go

- Educator guide
- PowerPoints
- Student activity sheets
- Professional development video



STEM Project Starters

- Students to apply content knowledge to real world problems
- Project learning format



Virtual Field Trips

- Palo Verde Generating Station - 2018
- Idaho National Laboratory - 2020
- Nuclear: Land, Sea, Space - May 2021

Career Profiles

Feature professionals in the nuclear field and the impacts they have on the world around us.

Nuclear Researcher

Sukesh Aghara, Ph.D.
Associate Professor, Chemical Engineering
Director, Nuclear Engineering Program
Director, Integrated Nuclear Security & Safeguards Lab (INSSL)
University of Massachusetts Lowell
Download Career Profile

"Aspiring nuclear researchers should be analytical thinkers who are naturally curious and have a predisposition to saying 'yes'."

Mechanical Engineer

Natalie Zaczek McIntosh, P.E.
Nuclear Fuels Engineer
Exelon Nuclear
Download Career Profile

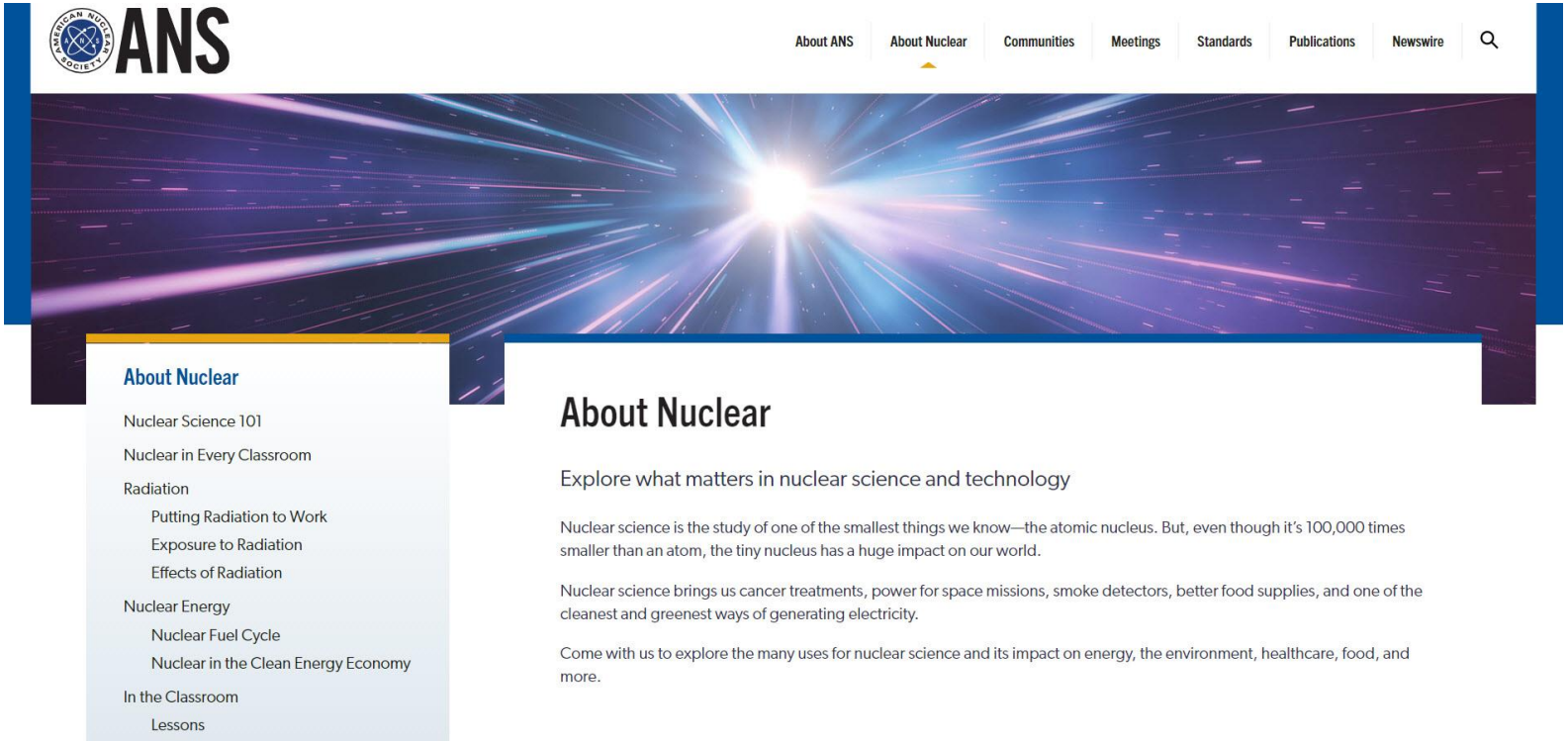
"Don't worry too much if you're uncertain about which type of engineering degree to pursue – you don't specifically need a nuclear engineering degree to be part of the industry."

Radiochemist

M. Alex Brown, Ph.D.
Chemist
Argonne National Laboratory
Download Career Profile

"With great power...comes great responsibility! Nuclear chemists have a moral duty to promote peaceful uses of nuclear technology and dispel negative and harmful myths about nuclear energy."

About Nuclear



- New location for nuclear science and technology information
- "Site within a site"

Nuclear Science 101

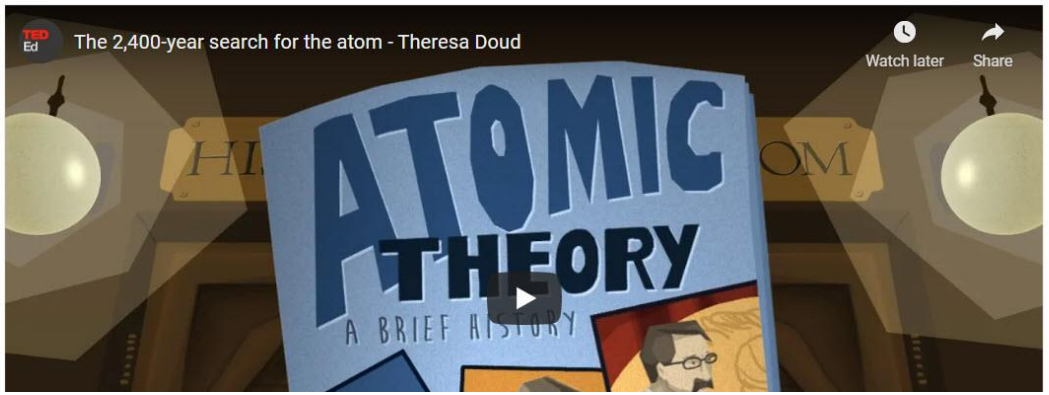
Nuclear science is far-reaching in the fabric of modern life. It can help explain the origins of the universe or how x-rays reveal the bones in your body. In fact, nuclear science is at the heart of so many of the technologies that improve our lives, that it's easy to take for granted how those technologies came to be. But behind every innovation and discovery in the nuclear fields, is a scientist or engineer researching the atomic nucleus and how to use it to improve our lives.

Nuclear Science 101

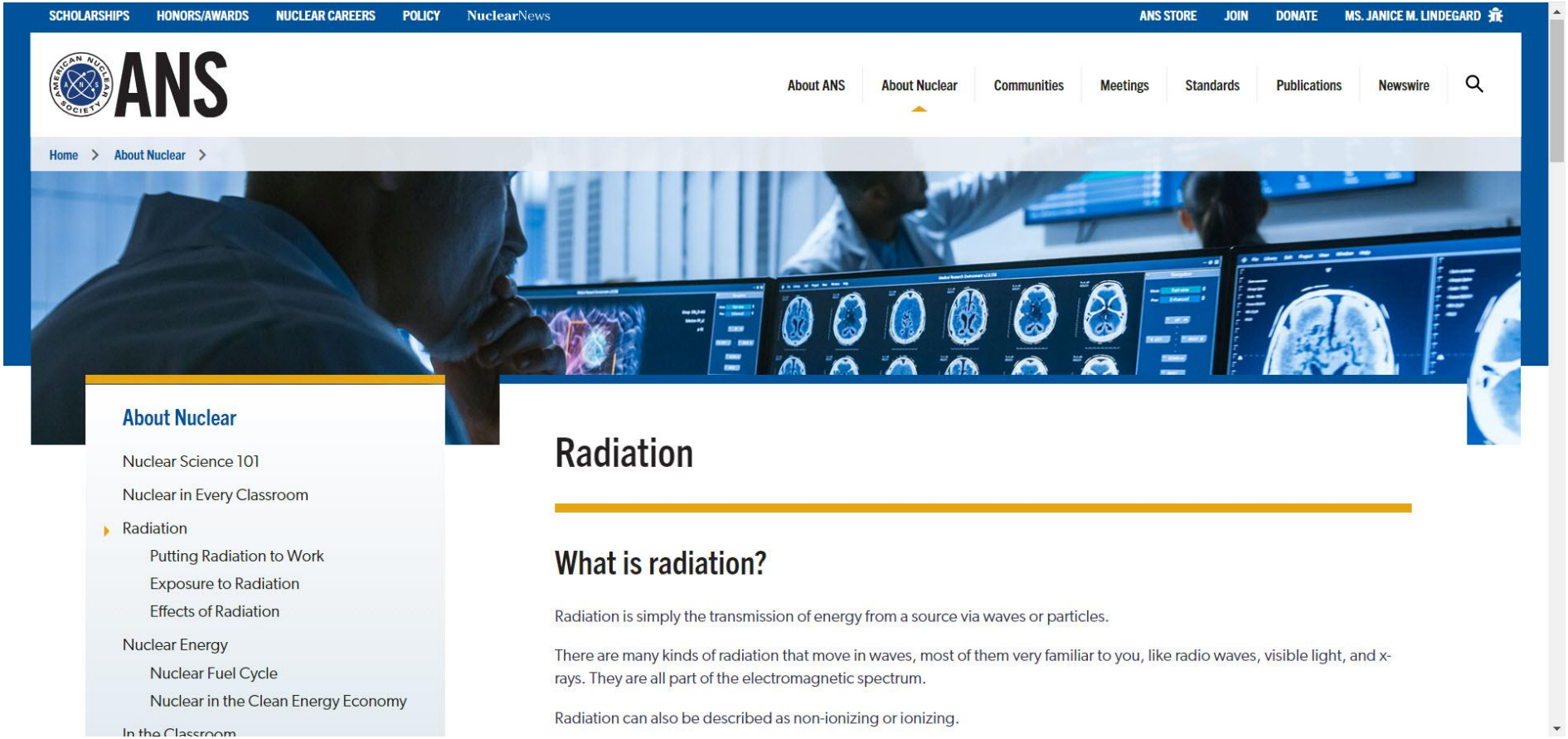
Look around you. Everything you see, including you, is made of the same stuff—elements. Each of those elements has its own unique characteristics, but all elements are made of atoms—the smallest unit of an element that still has the characteristics of the element.

Scientists used to think there was nothing smaller than an atom.

Today, we know the atom is made of smaller particles, and those are made of even smaller particles.



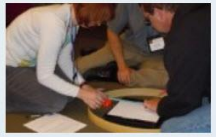
Radiation



ANS

Education Resources

Lessons



Modeling Atomic Structure

Making Atoms Visible:

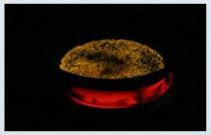
Cloud Chambers

Making Atoms Visible:

Electroscope

Activities

Coloring Pages



Irradiated Salt

Critical Mass: Controlling Fission

Dose Calculator

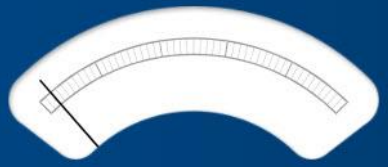
Common Sources of Radiation

All figures for radiation exposure are average values.

WHERE YOU LIVE	ANNUAL DOSE
Cosmic Radiation (from outer space) Exposure depends on your elevation (how much air is above you to block radiation). Amounts listed are per year. at sea level (26 mrem) *Elevations: Atlanta 1050; Chicago 595; Dallas 436; Denver 5280; Las Vegas 2000; Minneapolis 815; Pittsburg 1200; St. Louis 455; Salt Lake City 4400; Spokane 1890. USGS GNIS Search.*	26 mrem
Terrestrial (from the ground) ○ I live in a state that borders the Gulf or Atlantic coasts (15 mrem) ○ I live in the Colorado Plateau area (75 mrem) ○ I live elsewhere in the continental U.S. (35 mrem)	0 mrem
House Construction ☐ I live in a stone, adobe, brick, or concrete building (7 mrem)	0 mrem
Power Plants ☐ I live within 50 miles of a nuclear power plant (0.01 mrem)	

YOUR ESTIMATED ANNUAL RADIATION DOSE:

266 mrem



ANS

Educator Workshops

- Live events tied to national meetings
- ANS leadership highly involved
- Move to virtual

Member Outreach

Support:

- Teacher workshops
- Scout badge clinics
- Nuclear Science Week
- Grants
- Webinars
- Engineer interviews

ATOMIC STRUCTURE

Discuss: What is the electromagnetic spectrum? What are atoms? How are they structured? makes an atom stable?

Learn about atomic structure and more →

Radiation Basics PowerPoint (includes atomic structure)

Activities (do one)

1. Build an atom
   Virtual
   In person
   In person Navigating Nuclear Amazing Atoms lesson
2. Demonstrate half-life
   These activities can be completed in person or in a virtual meeting
   Half-life of Licorice and Modeling Half-life
   Realities of Radiation Educator Guide, pages 22 and 23
   Worksheets
   This activity can be completed virtually
   Comparing half-lives
3. Recreate the discovery of the nucleus
   Modeling Atomic Structure In person
   Rutherford Scattering Virtual

Questions

jlindegard@ans.org

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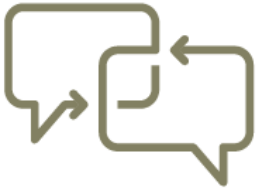
Let's interact



Which kind of game would you play first?

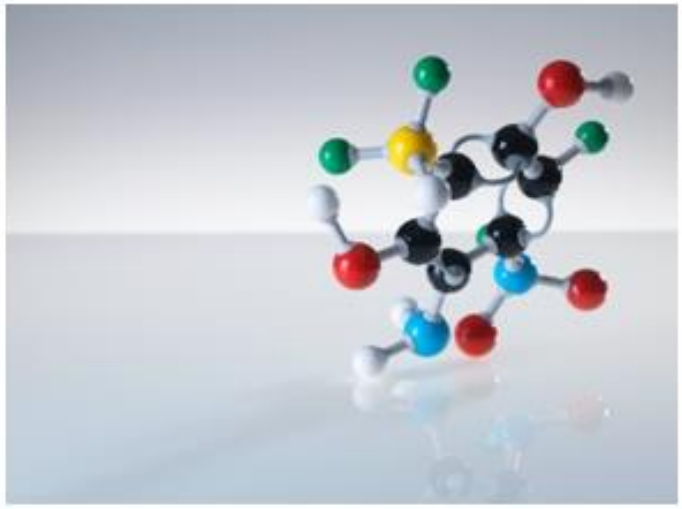
- Board/Card games (e.g. Monopoly, Risk, Chess)
- Logic games (e.g. Tetris, Sudoku)
- Sports games (e.g. FIFA, NBA)
- Action games (e.g. Marvel's Spider-Man)
- Role-Playing games (e.g. Dungeons and Dragons)
- Simulation games (e.g. Mario Kart, SimLife)
- Learning games (e.g. Duolingo)
- Fitness games (e.g. Wii, Strava, Nike Run Club)

Today's Speakers

An Coppens

- Chief Game Changer at Gamification Nation
- Projects include gamification of onboarding, learning, recruitment, sales all to increase engagement and find the right fit of people and results
- Host of 'A question of gamification" podcast and author of several books and blogs
- Worked in learning and development and change management at Modern Times Group, Xigma Management Consultants, Philips Electronics and Arthur Andersen Business Consulting
- BA (Hon) in International Marketing and languages from Dublin City University and MBA from the Open University Business School in the UK.

How can gamification help with engaging stakeholders?



Prepared by An Coppens

www.gamificationnation.com

GAMIFICATION NATION

What is my definition of gamification?

Gamification (pronounced game-i-fi-ka-tion)

is the application of game dynamics, game psychology and game mechanics to non-game situations and applications

Which character will make the smartest choices?

GAMIFICATION NATION

The Scientist

The environmentalist

The Engineer


Trend 1:
E-Sports are
growing

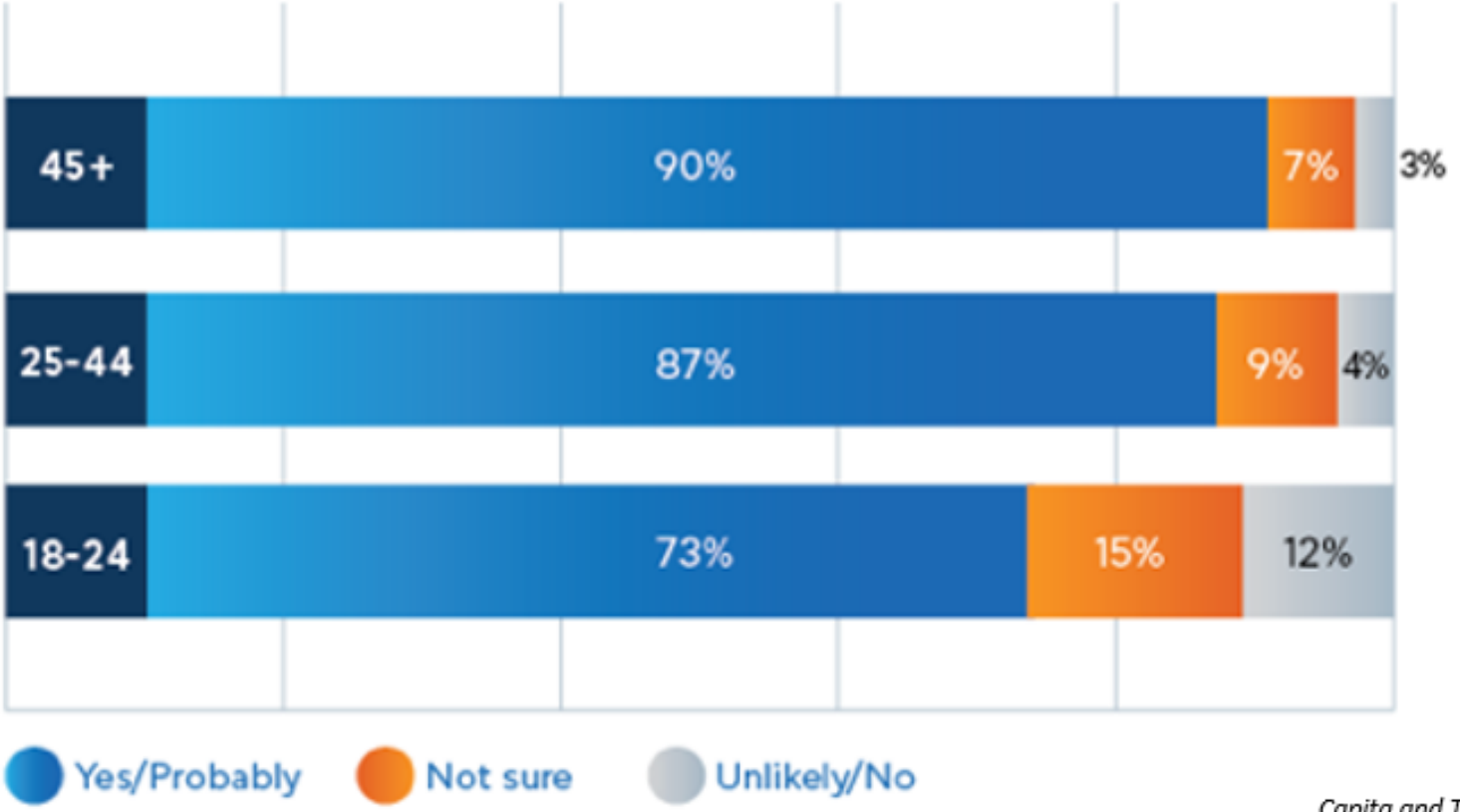
What does gaming teach people?

Trend 2: Acceptance of gamification

Will people like it?

GAMIFICATION NATION

AGE vs GAMIFICATION ATTITUDE



Capita and Talent LMS

Trend 3: It's all around us

- Social media
- Smart watches
- Health trackers
- Leaderboards
- Competitions
- Etc…

GAMIFICATION NATION

Badge of honour

GAMIFICATION NATION

Simulations, experiments, virtual worlds

GAMIFICATION NATION

FEATURED WORLDS

NGĀ MOTU – THE ISLANDS
Welcome to the Māori world of Aotearoa.

Template | Creative

VIEW WORLD

FANTASTIC MR. FOX
The world of Fantastic Mr. Fox in Minecraft.

Build | Creative

VIEW WORLD

FLUFFLETOPOLIS
The Imaginormous winner's story comes to life

Build | Creative

VIEW WORLD

TUTORIAL WORLD
No newbies here, lets learn to play!

Build | Survival

VIEW WORLD

How will you provide light for all the citizens in your home city in a clean and sustainable manner?

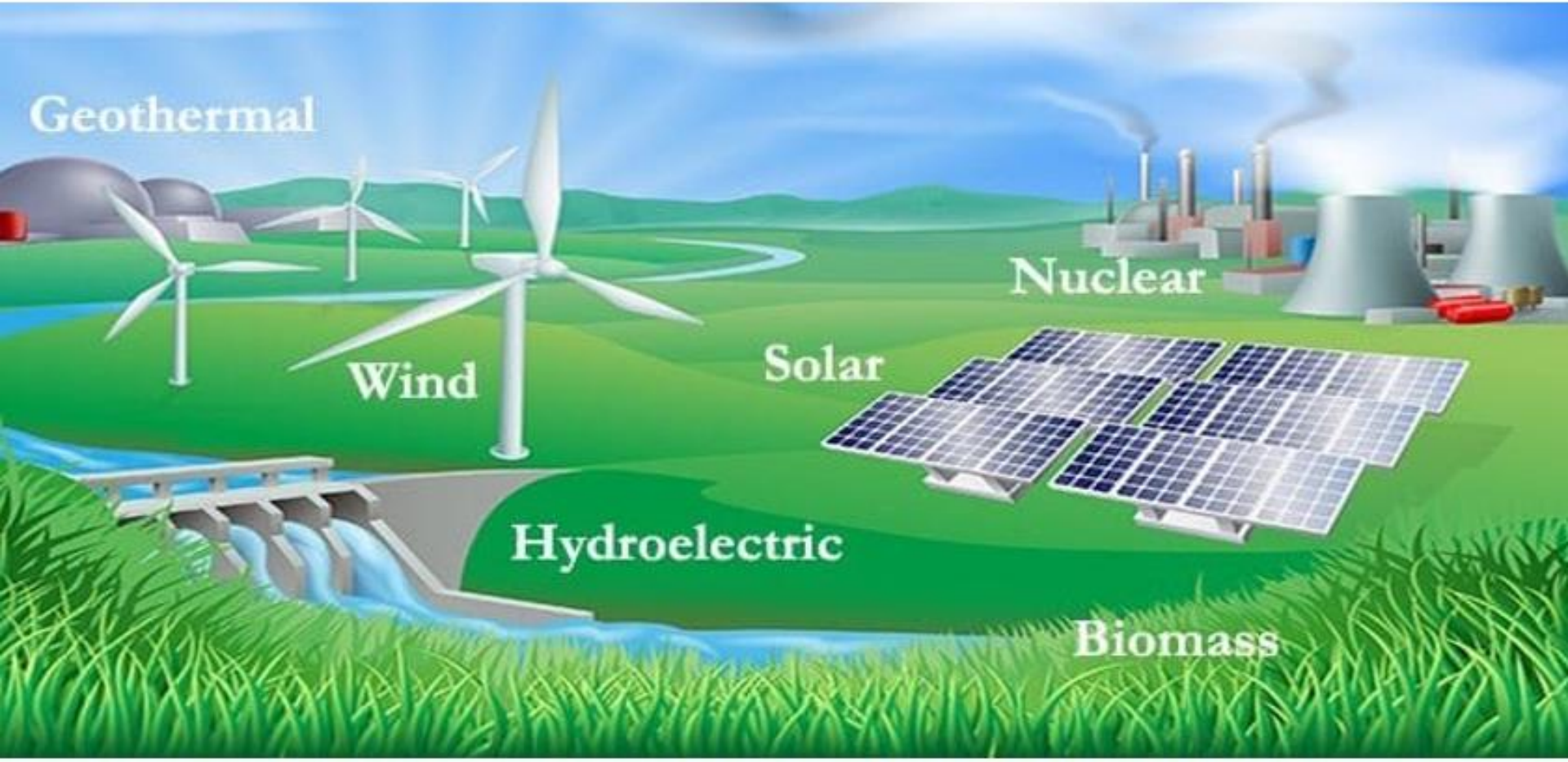
GAMIFICATION NATION

The Scientist

The environmentalist

The Engineer

The choices for our characters



The dilemma's

- Their knowledge
- Or lack of knowledge
- Environment
- Ecology
- Geography
- Safety
- Risk

We have the base components for a game

GAMIFICATION NATION

Win condition(s)

Rules

Storyline - theme

Game mechanics

Think impact!

Results:

80% increase in confidence, 40 % increase in retention of information, 90% more engagement


THANK YOU
GAMIFICATION
NATION

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Q&A

Laura Escribano

Alicia López

Janice Lindegard

An Coppens

#8 Design & Tools for Engagement

Inspiring Audiences through Visuals, Games and More

IAEA

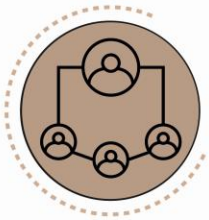
Upcoming Webinars

#9
Stakeholder Involvement in New Nuclear Power

Engagement in the Nuclear Newcomer Field

#10
Engaging with Policy & Decision Makers

Knowledgeable and Interested Leaders



#11
Talking about Nuclear Power & Climate Change

Together for a Clean Energy Future

#12
Communicating about Nuclear Waste

Clarifying Waste Options and Opportunities

IAEA

Thank you!