

Brand Guidelines

2 1 M A R C H 2 0 1 8



**Quantum
Flagship**

By Dogstudio

Logotype

-
- 1.1 Main shape
- 1.2 Zone of protection
- 1.3 Minimum size
- 1.4 Variants, block & icons
- 1.5 Don't use
- 1.6 Secondary logos



Logotype the story

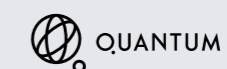
At beginning, there was nothing. Nothing visually perceptible in any case. The history of the graphic identity of «Quantum Technologies» started in November 2017 at the Max Plank Institute. During a 3-day workshop, Quantum Technologies team and Dogstudio worked hard to define an identity fundamental to Quatum technologies, but also (and especially) defining «what form should it take to talk to which audience, and in what way?

A host of ideas began to take shape, an identity came to life ...

This document presents the graphic identity of Quatum Technologies in all its diversity, outlining the rules to respect and ensure a long and beautiful life.



Minimal shape for a complex subject
Curiosity and mysterious spirit
Innovatives with touch of human,
Playful, emotion and lights
Precise but not elitist
Illustrations with a big idea
Univers colored and pink touch
Living logo and dynamic identities
Particules, waves connections,

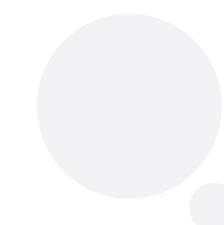
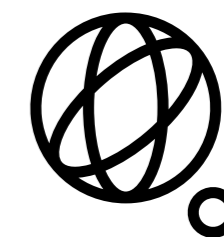


1.1

Main Shape

The main form of the «Quantum Technologies» logo was born from the shapes of the letter «Q», a particle and an atom.

The body of the «Q» is the central element around which a particle is articulated smaller .. At the same time. huge and tiny, small and big, extended and compact, in perpetual evolution, ... This form inspires the movement of the atypical and non-static representation of the atom. But it's not only that...





Logo usages

1.2 Zone of protection

The exclusion zone is a specific amount of empty space to be maintained around the logo in order to maintain its visibility and integrity regardless of how it is used.

The size of the round of the little «Q» =
The size of margin protection around the logo.



1.3 Minimum size

To maintain the visibility and integrity of the logo, a minimum size exists, regardless of how it is used. This is the zone of protection.

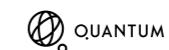
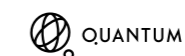
Under **25 mm** the logo must be used without his baseline, and under **15 mm** the logo cannot be used.



Minimum Size with baseline



Min. width = 25 mm



Minimum Size without baseline



Min. width = 15 mm

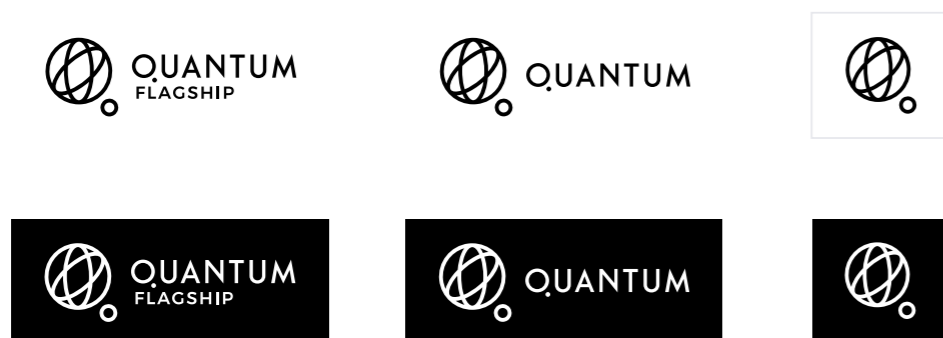
1.4 Variants, block background and icons

The main and negative version are not always enough to ensure an optimal reading of the logo. To allow a beautiful setting in large visuals (photographic or illustrative) without reducing its legibility, the logo also exists on 3 different colour blocks or without block background. If possible the logo on color or negative version can also be used without the background.

The icon on its own could also to be used.



The black and white version can be used for some technical of reproduction without colors (signage, drystamp, stamp,...)



1.5 Don't use

To conserve a strong and coherent identity for Quantum Flagship, We must respect these global rules:



Change the colors



Distortion



Minimum size should be respected



Rotate the logo



Change typography



Change opacity



Add an effect



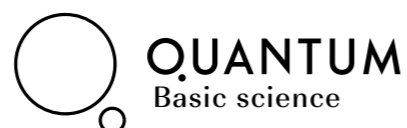
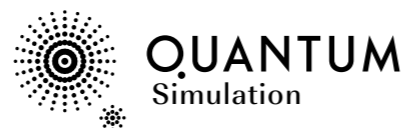
Change proportions



Domains logos

For each domain of Quantum Flagship, we created a specific icon which represents each activity sector. The main shape is the same as the principal logo but there is a different pattern inside this main shape. There are Five domains : Computing, Simulation, Sensing and metrology, Communication and Basic Science.

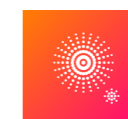
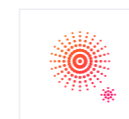
Each secondary logo works with the same rules of usage of the main logo : zone of protection, minimum size, variants, block background and icons, don't use, colors...



1.6 Secondary logos

As the main logos, each variants of domains exist with different colors of background, in positive, in negative, in monochrome...

Each domain also exists with the main icon





Colors

- - 2.1 Main Colors
 - 2.2 Secondary Colors



Colors Palette

« YES! quantum physics can be fun, attractive and accessible to everyone, including women and young people! »

2.1

Main colors

«**Main colors**» include the colors of the «playful color» logo as well as a darker tones, used mainly for texts.

Dark Blue brings contrast, strength and seriousness about the visual identity.

The pink / orange gradient is the essence of Quantum Flagship's identity: playful, vibrant, warm ... It is the textured and original side of the Quantum Flagship. Compared to what is currently done in the sector, the Quatum Flagship is groundbreaking, and proud of it



2.2

Secondary colors

Secondary colors should be used subtly, by little touches. The pop color can be used to highlight smaller elements. On the other hand, the peaceful color brings neutral tones and allows you to place a message in the background.



Orange

Cmjn 0, 63, 97, 0
Rvb 255, 126, 3
Href #ff7e03
Pantone 1595

Pink

Cmjn 0, 100, 24, 4
Rvb 255, 3, 122
Href #z
Pantone 214

Neutral White

Cmyk 0, 0, 0, 0
Rgb 255, 255, 255
Href #ffffff
Pantone -

Light gray (Blue 10%)

Cmyk 12, 8, 5, 2
Rgb 230, 231, 236
Href #e6e7ec
Pantone -

Middle gray (Blue 60%)

Cmyk 64, 58, 26, 4
Rgb 107, 109, 142
Href #6b6d8e
Pantone -

Dark Blue

Cmyk 100, 95, 5, 39
Rgb 8, 10, 69
Href #070a44
Pantone 2758

Pastel turquoise

Cmyk 40, 0, 21, 0
Rgb 0, 255, 189
Href #00ffbd
Pantone 337



Typography

•
3.1 Imperial URW

3.2 Montserrat

3.3 Reenie Beanie



Main typography

Aa

Imperial URW

Medium > Bold

abcdefghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

01234567890@&é"(\$è!çà)

Aa

Montserrat

Thin > Black

abcdefghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

VWXYZ 01234567890@&é"(\$è!çà)

Aa

Reenie Beanie

Thin > Black /

abcdefghijklmnopqrstuvwxyz

01234567890@&é"(\$è!çà)

The Imperial URW font, main font for the title, is a premium font. If you don't have the licence to use or if you want use this font on a newsletter or e-mail signature, you can replace the Imperial URW by Times New Roman and Montserrat (free font but not compatible in the newsletter and e-mail signature) will replace by Verdana. - (exemple page 00)

3.1

Imperial URW

This font is essentially used for the big titles, the subtitles or the quotations. It's a beautiful mix between a sans serif and a serif font. This font give a lot of character to the identity. Imperial est également utilisée pour la première lettre du premier paragraphe d'un texte (letterine)

Don't use for the paragraph with a lot of text

3.2

Montserrat

Montserrat will mainly be used for long texts and paragraphs. It gives the identity good readability both on printed media and digital reading. Also used in subtitles with a strong intertiting and in capital letters

Don't use for - the big titles - in capitalize without interlettering

3.3

Reenie Beanie

This script typography brings the human touch to the Graphic Identity of Quantum Technologies. It is used for margin notes, pages, quotes, numbering, ... She serves mainly to summarize the ideas of a long text.

Don't use for - big titles - in capitalize



Images

- 4.1 Photo filtre
- 4.2 Illustrations
- 4.3 Icons



4.1

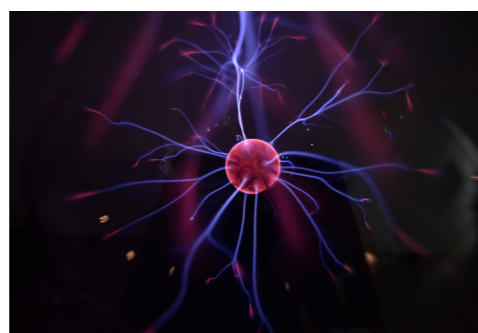
Photo filter

The **Dark Blue** is used with a «superposition effect» to give all images the same look.

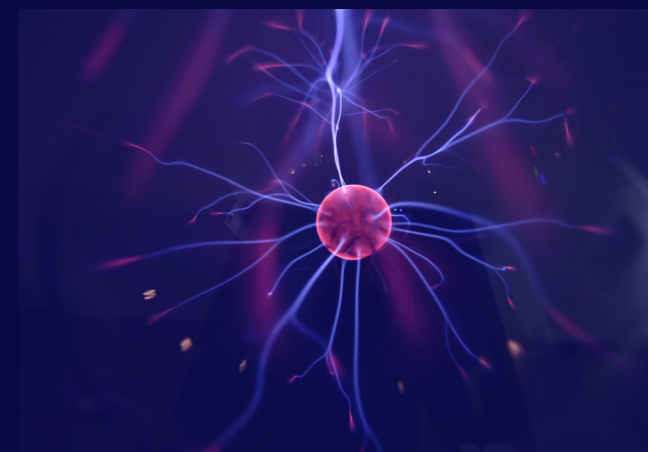
When the quality color of the photography is too bad, the background too light, or if it's a black and white photography, it's better to use the dark blue monochromatic.



Without photofilter

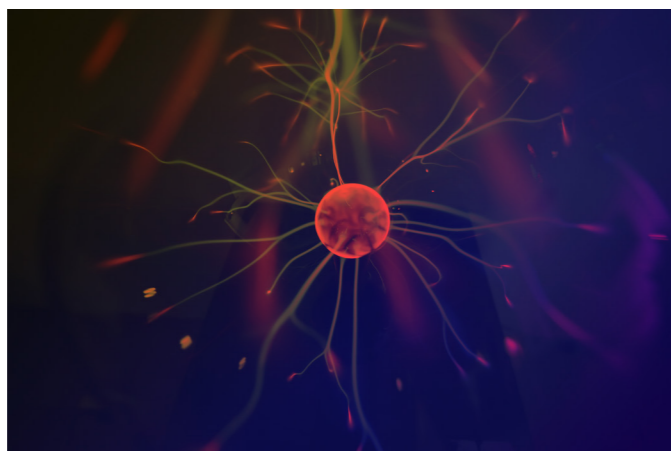


With photofilter

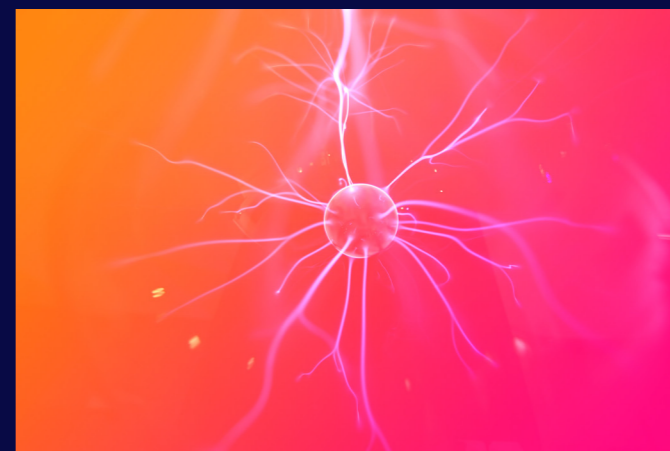
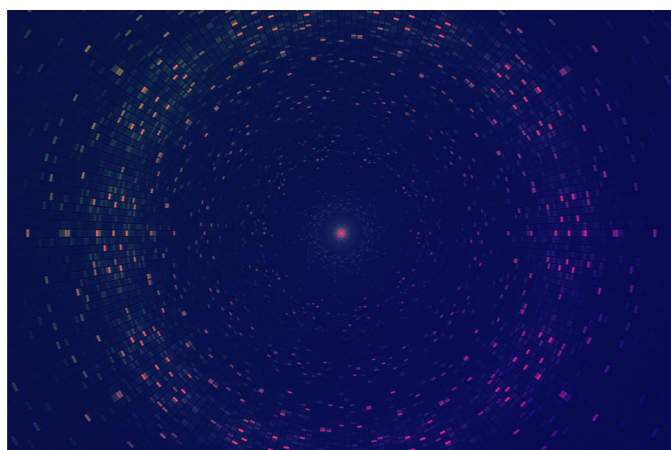
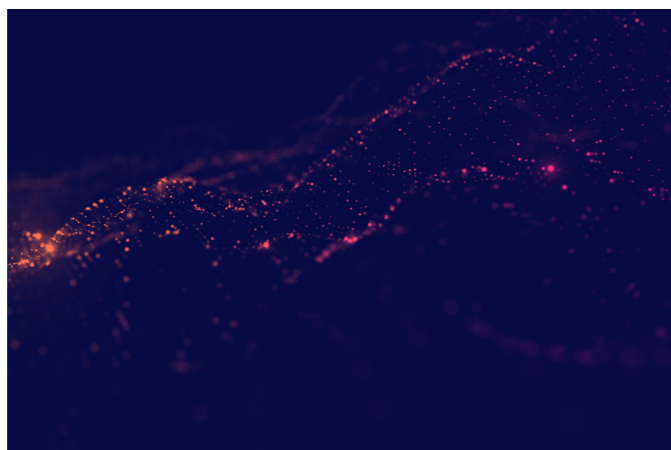




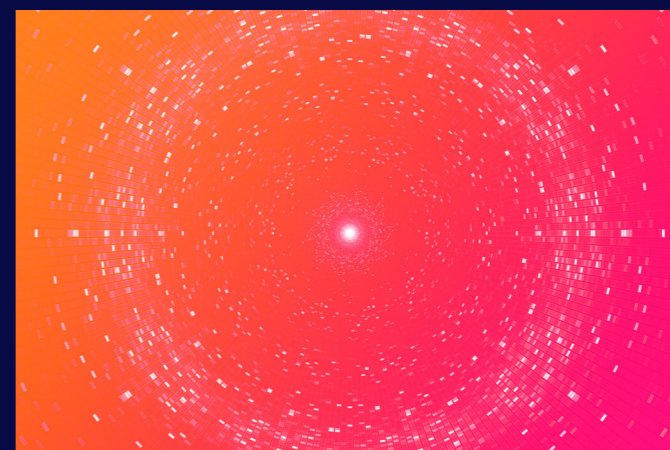
4.2 Illustration photography



Dark
Palette



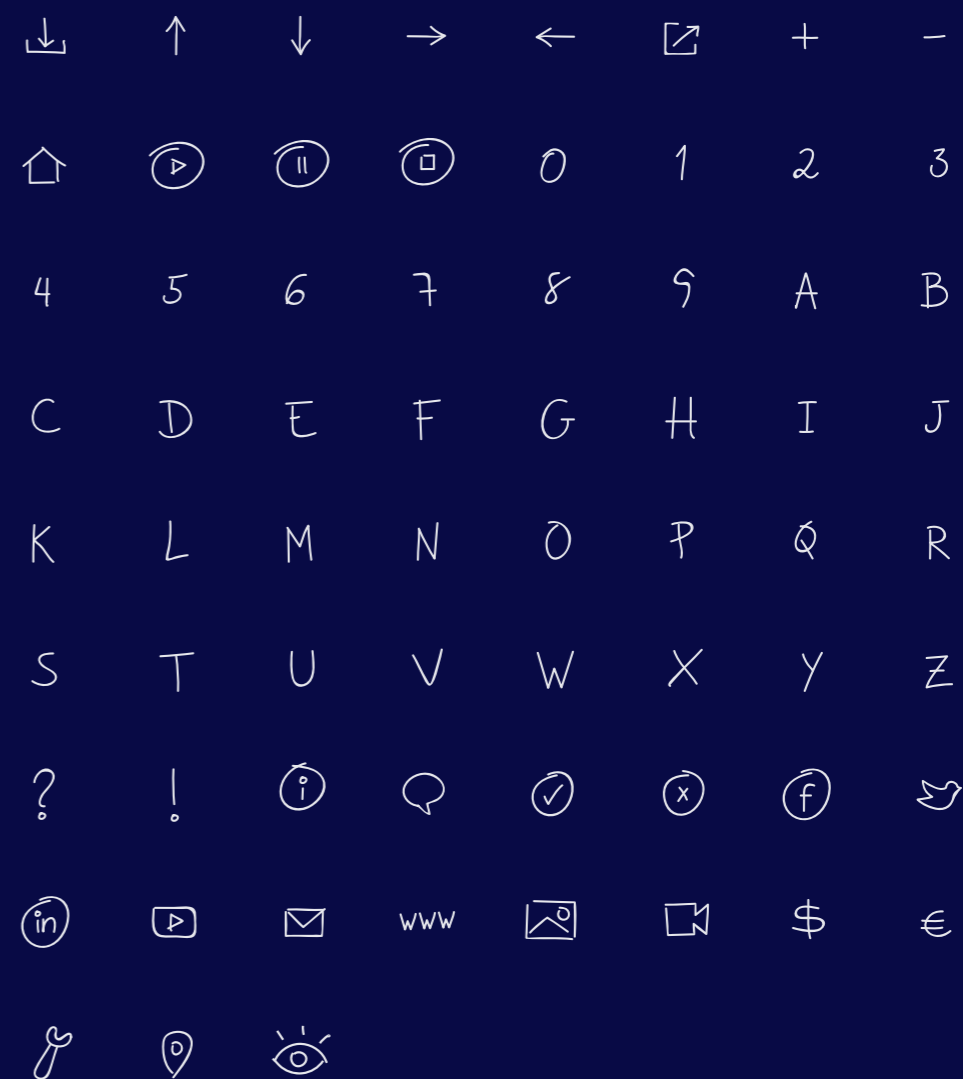
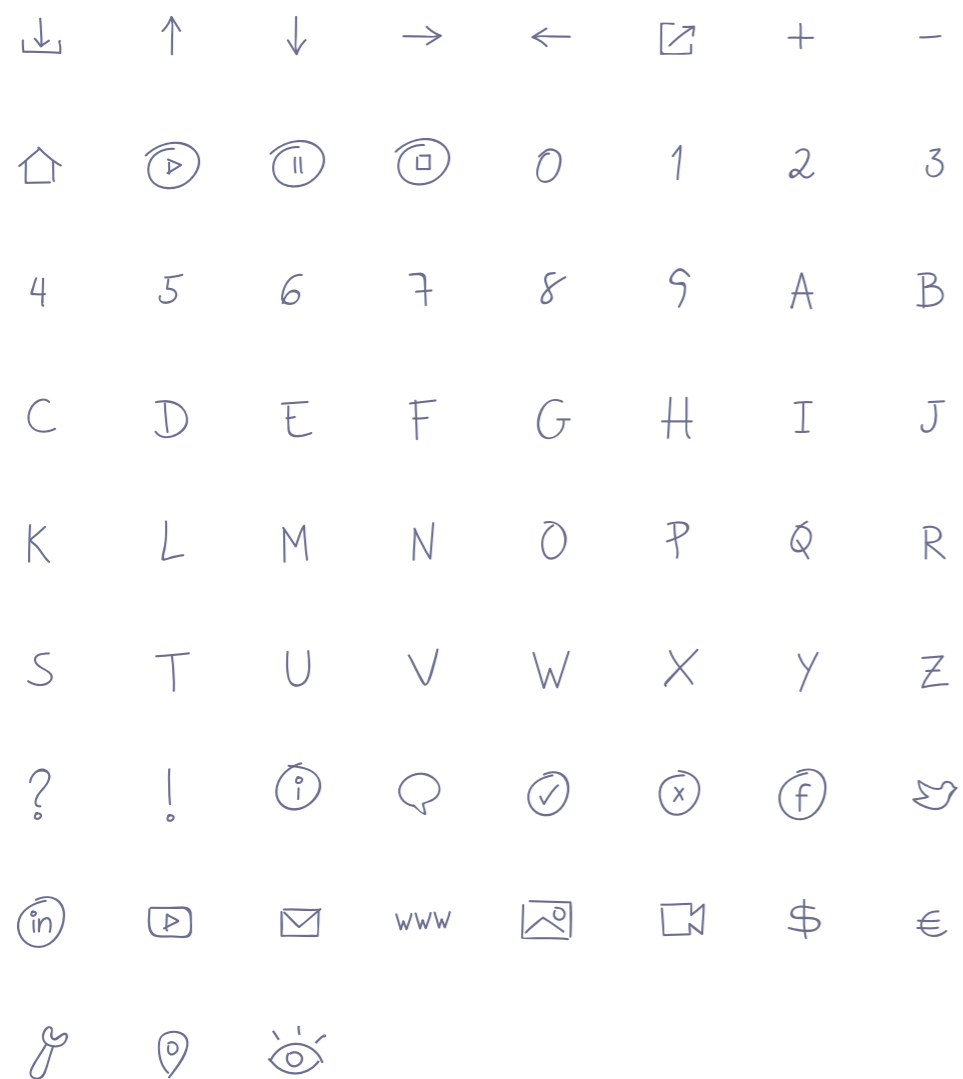
Bright
palette





4.3

Icons



Stationery

-
- 5.1 Mail signature
- 5.2 Stamp
- 5.3 Pencils
- 5.4 T-shirt
- 5.5 Wristband
- 5.6 Book
- 5.7 Slide of business card
- 5.8 Totebag
- 5.9 Templates



5.1 Mail Signature

In an e-mail, we cannot to use the main typography. Two font of substitution are used to replace the main fonts : Imperial and Montserrat.

Times Roman Semibold is used for the First name, the second name and the url.
Verdana is used for the little texte of informations.



Max Riedel

searcher at ulm university & responsible of ...
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5.2 Stamp



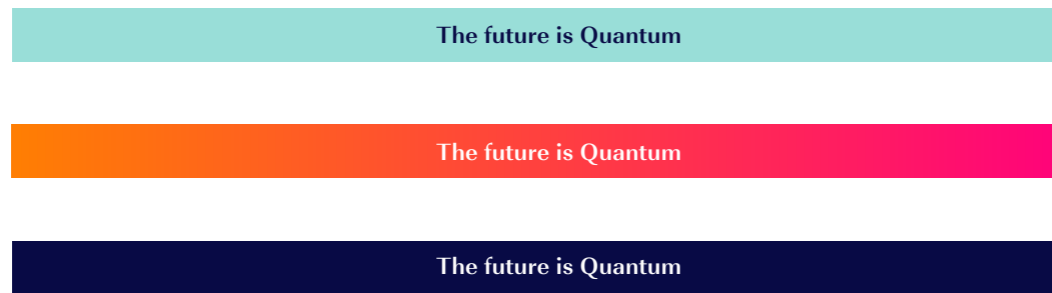
5.3 Pencils



5.4 T-shirt



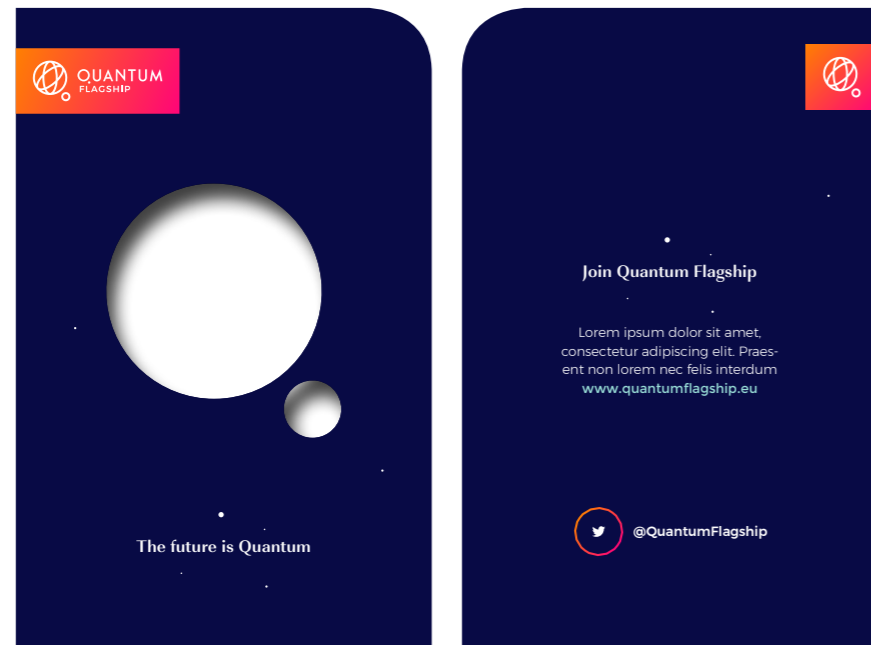
5.5 Wristband



5.6 Book cover and first inside pages



5.7 Slide of business card



5.9 Templates



5.8 Totebag





Executive summary



The first quantum revolution - understanding and applying the physical laws of the microscopic realm - resulted in ground-breaking technologies such as the transistor and the laser. Now, our growing ability to manipulate quantum effects in customised systems and materials is paving the way for a second quantum revolution.

In April 2016, the European Commission announced the Quantum Technology (QT) Flagship, which will be managed as part of the FET program and is expected to be a large-scale initiative similar in size, timescale and ambition to the two ongoing FET Flagships.

Longer than the flagship's expected duration of ten years

The QT Flagship initiative is very important and urgent to place and keep Europe at the forefront of the second quantum revolution now unfolding worldwide, bringing transformative advances to science, economy and society. It will create new commercial opportunities addressing global challenges, provide strategic capabilities for security and seed yet unimagined applications for the future. In the past, Europe has missed the opportunity to capita-

lize on major technology trends (e.g. digital platforms); this could well happen again if Europe does not take decisive action now. Developing Europe's capabilities in QT will help to create lucrative knowledge-based start-ups, foster further growth of SMEs and industry and thus lead to long-term economic, scientific and societal benefits.

The long-term horizon is a "Quantum Web": quantum computers, simulators and sensors interconnected via quantum networks distributing information and quantum resources such as coherence and entanglement. On the corresponding time scale - which is in fact longer than the flagship's expected duration of ten years - the performance enhancements resulting from quantum technologies will yield unprecedented computing power, guarantee data privacy and communication security, and provide ultra-high precision synchronization, measurements and diagnostics for a range of applications available to everyone locally and in the cloud.



14 April 2016
The Quantum Flagship was born.

To prepare the QT Flagship, the European Commission appointed an independent High-Level Steering Committee (HLSC) consisting of 12 distinguished Academic Members and 12 high-ranking Industry Members (from both large multi-nationals and SMEs), as well as one observer. The main tasks of the HLSC are to deliver (1) a Strategic Research Agenda, (2) an Implementation model and (3) a Governance model. This Final Report addresses these by containing (1) as already published in the Intermediate Report, as well as detailing recommendations for point (2) and (3), enhanced by discussions with the European Commission and Member States.

The Strategic Research Agenda (SRA) proposed in this document sets the ambitious but achievable goals for the Flagship's ten-year lifetime, and details them for the initial three-year ramp-up phase. To work towards these goals, the QT Flagship should be structured around four mission-driven research and innovation domains, representing the major applied areas in the field: Communication, Computation, Simulation, as well as Sensing and Metrology. These application domains should be built on a common basis of Basic Science, with top research institutions and companies spread across Europe assisting their objectives by delivering novel ideas, tools, methods and processes. The enabling aspects addressed in each domain belong to one of these three categories: Engineering and Control, Software and Theory, Education and Training.



4 missions:
Computation
Simulation
Sensing and
Metrology
Communication

the representatives of the Quantum flagship





Longer than
the flagship's expected
duration of ten years

The mission of Quantum Technologies



Tommaso Calarco
Quantum Coordination and Support Action



Title level #1 lorem ipsum



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Title 2 – Lorem ipsum

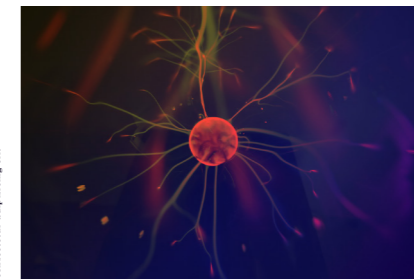
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4 missions:
Computation
Simulation
Sensing and
Metrology
Communication

lorem ipsum dolor sit amet,
consectetur adipiscing elit.



The mission of Quantum Technologies

25 JANUARY 2018



Tommaso Calarco
Quantum Coordination and Support Action



An introduction
to Quantum Technologies



Quantum Computers are fundamentally different and will have big impact on high performance computing

NOVEL ARCHITECTURES - QUANTUM COMPUTING

Quantum computing (QC)

- Fundamentally different computing architecture and hardware
- Fundamentally different algorithms and software development

Gate-based QC (IBM, Google, ...)

- Massively improved scaling
- QCs with 50+ qubits will beat classical supercomputers for certain problems
- Very sensitive to errors
- Currently only few qubits systems

Applications:

- Simulation of quantum systems
- Number factoring / cryptography
- Searching
- Optimization, graph analysis
- Machine learning, pattern matching
- ...

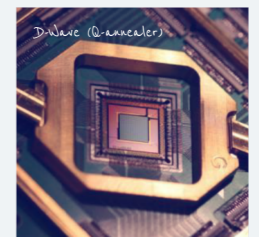
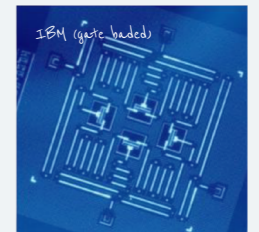
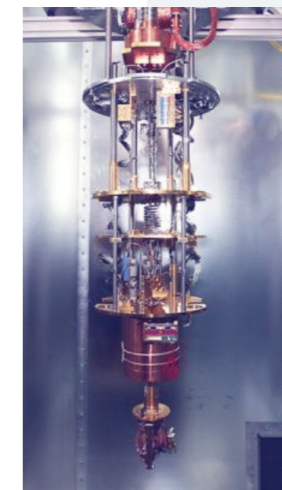
UL1

Quantum annealers (D-Wave)

- Speedup not mathematically proven, but experimentally shown
- Fourth generation systems available on market
- Current machine with 2000 qubits

- Applications:
- Optimization
- Sampling

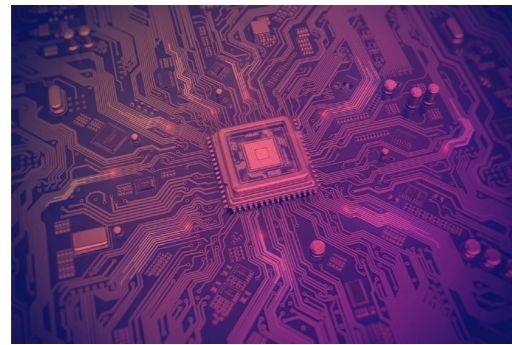
UL2/3





Quantum computers

ENORMOUS COMPUTING POWER AVAILABLE



Traffic, logistics, product lifecycle management, finance, pharma, artificial intelligence...

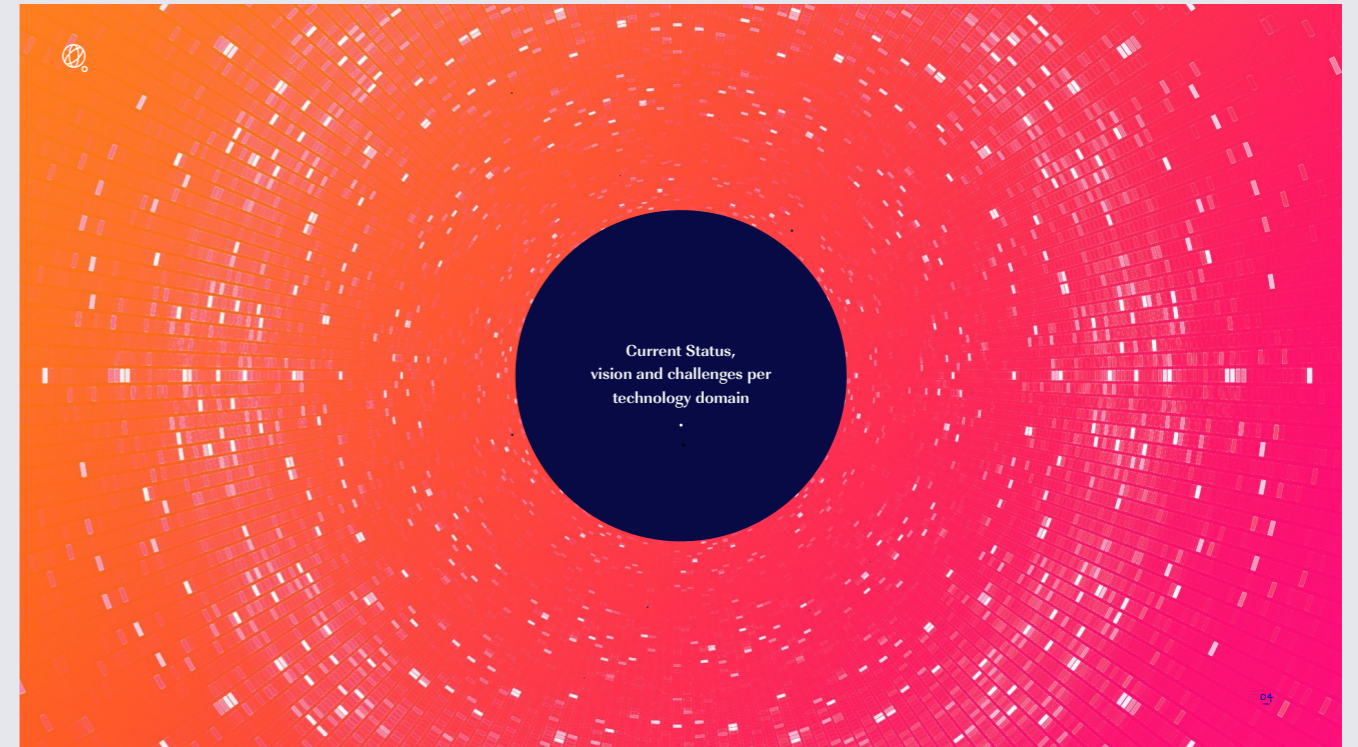
Traffic, logistics, product lifecycle management, finance, pharma, artificial intelligence,...

Technology : Exploit « quantum parallelism »

Vision : Enormous computing power for optimization (traffic, production, energy grids...) and quantum machine learning

Status : specialized quantum computers will soon outperform classical computers in very specific tasks. High interest by global IT corporations.

Challenges : Error correction to scale up to « universal quantum computers »



Current Status, vision and challenges per technology domain



Five reasons why will remain at the forefront of quantum technologies

ENORMOUS COMPUTING POWER AVAILABLE



The Quantum Flagship : implementing the Quantum mission

