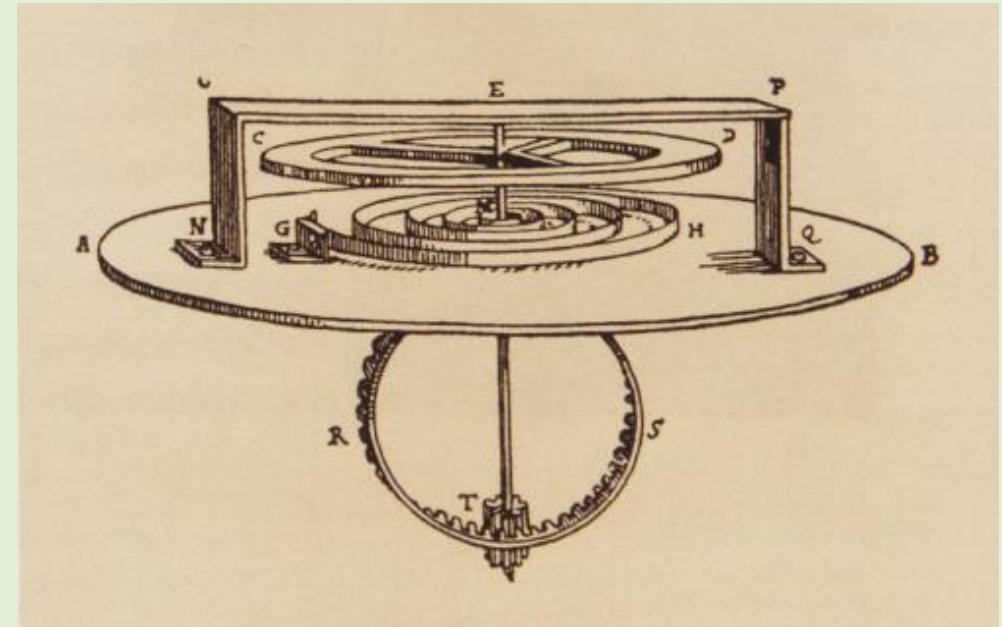




# Christiaan Huygens & the 350<sup>th</sup> hairspring's anniversary Traveling exhibition

On 25<sup>th</sup> of February 1675 this sketch by Christiaan Huygens was published in the *Journal des Sçavans*, Paris with a description of the invention.

2025 will mark the 350<sup>th</sup> anniversary of the invention of the hairspring by Christiaan Huygens.



In order to celebrate the revolutionary impact this invention had and still has on the world of watchmaking, the Stichting Haegsche Tijd, in collaboration with the Musée international d'horlogerie are creating a travelling exhibition (ref. slide 7 for background)



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**This traveling exhibition is divided into four main chapters. Each one will chronologically tell the story of the invention of Huygens' hairspring and presents the answers and improvements this innovation brought to the clocks and watches movements and their precision.**

**Chapter I : Contexts and challenges - XVI<sup>e</sup> and XVII<sup>e</sup> centuries**

**Chapter II : Huygens' beloved child : The spiral (1675 - XVIII<sup>e</sup> century)**

**Chapter III : Limits and new innovations at the heart of the watch: XIX<sup>e</sup> – XX<sup>e</sup> centuries**

**Chapter IV : Which future for the spiral in the XXI<sup>e</sup> century ?**



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## Chapter I : Contexts and challenges - XVI<sup>e</sup> and XVII<sup>e</sup> centuries contains:

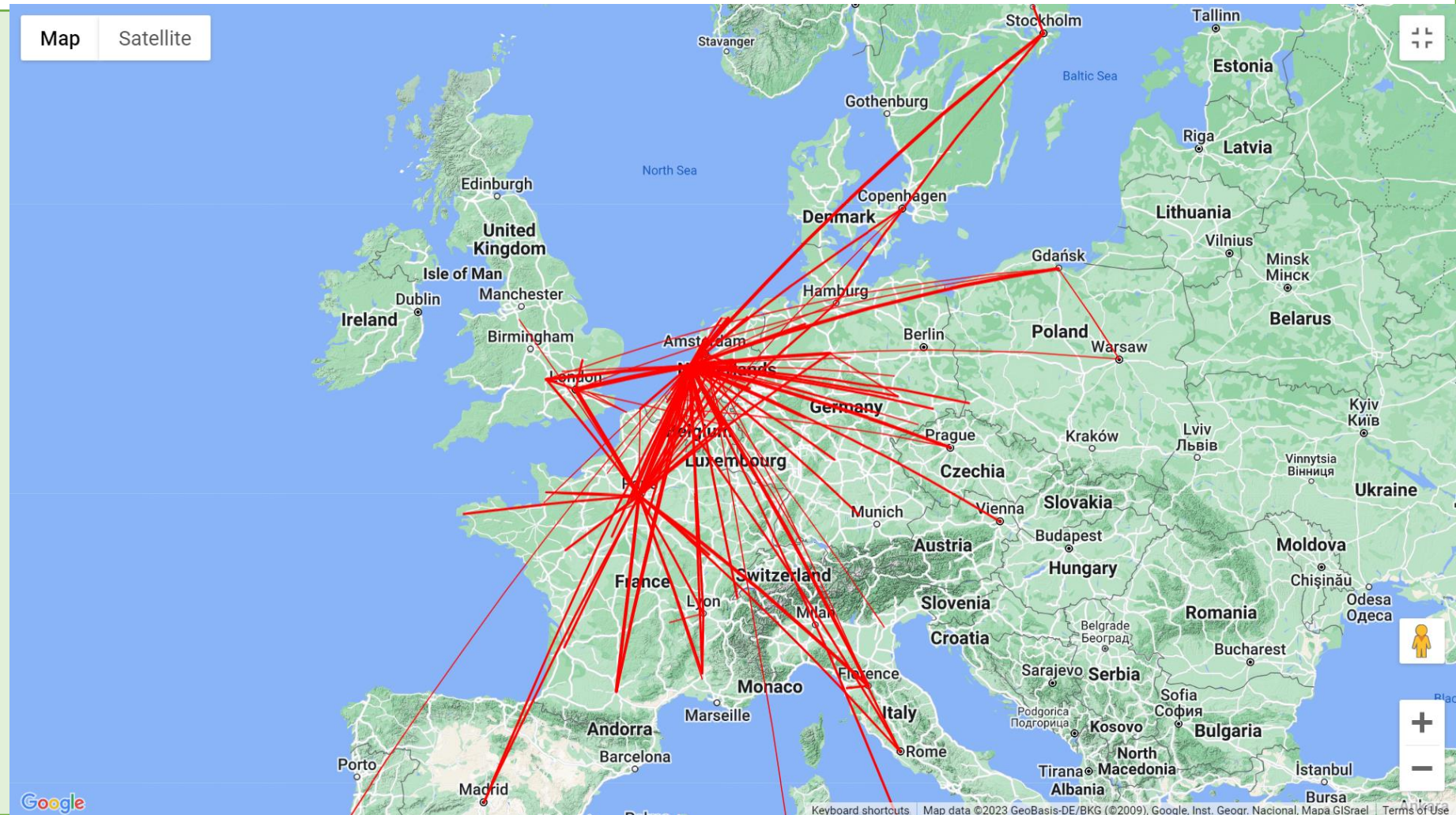
- political and scientific context at the time of Huygens' innovation
- biographical timeline of Huygens' life.
- *Longitude Act* with Huygens' attempts
- Interactively mapping of Huygens' relations and contacts with other scientists
- clocks and watches of the mid and last quarter of the XVII<sup>th</sup> century, which have a foliot, a balanced wheel, pendulum and the hairspring.
- *Original drawing and manuscripts from the Leidse University Archives*



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**Huygens' relations and  
contacts with other  
scientists from his  
correspondence**

**Interactive tool developed by  
Dirk van Miert,  
Director Huygens Institute,  
Amsterdam**





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## Chapter II : Huygens' beloved child : The spiral (1675 - XVIII<sup>e</sup> century) contains:

- MIH rebuilt model of Huygens balance and hairspring innovation in 1675
- challenges on the following aspects: escapements, curves (multiples), materials, magnetism and temperature (thermos-hygrometry)
- the notion of isochronism and a cycloid model
- some early clocks and watches are shown with the hairspring leading to modern chronometers, including marine chronometers.



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## Chapter III : Limits and new innovations at the heart of the watch: XIX<sup>e</sup> – XX<sup>e</sup> centuries

- Guillaume's innovation with the use of Elinvar (1919)
- Five main manufacturers of hairspring in Switzerland merged
- They merges again with Nivarox, the main producer of hairspring in Switzerland.

## Chapter IV : Which future for the spiral in the XXI<sup>e</sup> century ?

- Last chapter will present contemporary innovations and researches.
- Innovation with silicon: developments with Patek Philippe, Frédérique Constant, Omega, Rolex and Flexous are presented.
- The exhibition will end with a debate: *is there any alternative to the hairspring?*



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## Conclusion and remarks on the exhibition:

- Christiaan Huygens was Europe's greatest scientist during the latter half of the XVII<sup>e</sup> century and deserves recognition
- The MIH is the most prestigious museum in Europe on clocks and watches
- The Leidse University Archives contain original manuscripts of Christiaan Huygens which they want to borrow out
- In total some 60 objects have been identified so far, including also matter to experience
- Lectures on various subjects from the exhibition can be held during the period of the exhibition



# Christiaan Huygens & the 350<sup>th</sup> hairspring's anniversary Traveling exhibition

## Sponsoring

**By supporting this project, you will see your institution's name associated with a major horological cultural event that will appeal to a wide audience and is destined to be a landmark event in Switzerland and abroad. You'll also get first-rate visibility and services:**

- Your name or logo will appear on promotional material, on the brochure and on the Impressum in the exhibition
- Free guided tours organised especially for you/your staff/your clients
- Private receptions can be organised for you/your staff/your clients
- Main sponsors will appear on the poster and invitation to the opening
- Depending on the level of your support, exclusivity may be granted in your sector of activity





# Christiaan Huygens & the 350<sup>th</sup> hairspring's anniversary Traveling exhibition

## Communication

**To ensure maximum visibility for the exhibition, which will take place in 2025 and welcome thousands of visitors, the following highlights are envisaged for ongoing communication**

- Press conference before the opening
- Media kit
- Opening ceremony of the exhibition
- Promotional posters and flyers
- Press and web announcements
- Social networks publications
- Websites of the MIH and SHT as well as tourist operators and event platforms
- Guided tours
- Exhibition brochure
- Educational workshops for young people
- Cycle of lectures
- Finissage of the exhibition



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**The celebration will be organised in close collaboration between the Stichting Haegsche Tijd (SHT) and the Musée international d'horlogerie (MIH).**

The Stichting Haegsche Tijd (SHT) has been founded in January 2018 with the ultimate goal to establish a Time-museum in The Hague. The idea is to cover in this newly set-up museum the mystery of time in all its aspects, from time-measurements devices to physical, biological and philosophical aspects of time. The basic activities of the foundation include the organisation of lectures, exhibitions and excursions. The current focus of the foundation is on Christiaan Huygens, as he is the most important Dutch scientist born and living in The Hague. Christiaan is underestimated in the Netherlands and specifically in The Hague. Moreover, Christiaan has been the inventor of the usage of the pendulum in clocks and off course the inventor of the hairspring in combination with the balance wheel in portative watches. As such Christiaan is of utmost importance of achieving our ultimate goal.

Unique in its architectural and museographical design, the Musée international d'horlogerie (MIH) deals with the themes of time and its measurement through man-made works of art. The permanent collection of the MIH is one of the most significant collections in the world. This fascinating collection, which is in the heart of the watchmaking town of La Chaux-de-Fonds, a UNESCO World Heritage Site, reveals the mysteries of time and brings to life the technical, artistic, social, economic and cultural history of watchmaking in Switzerland and around the world, from sun dials to atomic clocks, from clocks and watches to automata and machines as well as tools dating from the 16th century to the present day. Thanks to its rich collection, its work to promote and develop the watchmaking heritage, and its location in the watchmaking region, the museum arouses the constant interest of Swiss and foreign tourists.