

# THEO Technologies

## High Efficiency Streaming Protocol (HESP): Comparisons & tests

### Internship

*Leuven, Belgium (Europe)*

### THEO's vision & mission

[THEOplayer](#) is the industry-leading video playback partner for delivering a world-class viewer experience with HLS and MPEG-DASH across different platforms and devices. With our video player solutions for VR/360, web, mobile web, Android SDK, iOS SDK and Chromecast Receiver App SDK, THEOplayer is a trusted video player partner for some of the world's premier telcos, broadcasters and publishers. THEOplayer has proven compatibility with industry-leading solutions for streaming, advertising, DRM and server side ad insertion. Our worldwide customer base includes companies such as CNN, Telenet, NBC, Twitter, Swisscom, France Télévisions, Telia, CERN, Nasdaq, Hudl, Cisco and Softbank. In 2017, 2018 and 2019 THEOplayer has won the Streaming Media Readers' Choice Award for Best Video Player Solution/SDK. THEO Technologies is one of the fastest growing technology companies in Belgium. We are an ambitious team who have been disrupting the global online video industry since 2012. THEO Technologies has offices in Leuven (HQ - Belgium), Singapore (Singapore), New York and San Francisco (USA).

With video streaming on the rise, video player solutions face a growing need for an efficient and scalable approach which is adaptable to variable network conditions. Viewers are becoming increasingly demanding when it comes to streaming online video, as latencies and zapping times are expected to be as low as in classic (or even analogue) technologies. Moreover the approach needs to be scalable, efficient and tolerant to different network conditions. Existing streaming does not meet all of these requirements. Either the techniques are not sufficiently scalable (such as webRTC), either the latencies and zapping times are too high (as with HLS and MPEG-DASH). THEO Technologies designed a streaming protocol that combines the scalability of HTTP Adaptive Streaming technologies such as HLS with sub second latency and zapping times. This new protocol is called HESP – High Efficiency Streaming Protocol.

### Description internship

This internship focuses on **performing extensive comparative measurements and tests of the HESP protocol**. Tests include the comparison of HESP with other technologies in a wide range of realistic situations, testing the video quality of HESP in various conditions and testing the resilience to network issues.



The trainee will first get acquainted with the HESP protocol. Next the trainee will define a range of tests scenarios and conditions. Where necessary the trainee will develop tools to facilitate and automate the tests. During the internship, the trainee will learn how streaming video works and how the different components in the streaming video chain work. The trainee will get a good understanding of the quality metrics and the factors affecting the video playback quality.

## Does this sound interesting to you?

Please send your resume and cover letter to [careers@theoplayer.com](mailto:careers@theoplayer.com). We look forward to hearing from you.