The ZAPI project is the first One Health project in the European Innovative Medicine Initiative (IMI) program. Its objective is to define and validate unique methodologies that can be applied when new zoonotic infectious diseases will occur in Europe or other regions of the world. The project is supporting an entirely new approach for "anticipating the unexpected", and is defining new ways to alleviate the technical constraints which are typically encountered with the classical vaccine development processes.

The ZAPI project involves a total of 20 partners, from academic, biotech, and industry origin. One important feature of ZAPI is that it is "framed by an industrial mindset" from the start, in order to ensure the delivery of vaccine products that can effectively be manufactured at large scale. This quite ambitious objective will eventually be achieved through a succession of breakthroughs. The ordered sequence of these technical steps will define a "universal methodology" which can be used on the new emerging viruses. As the key deliverable of the ZAPI project, this methodology will reduce very significantly the timelines for the manufacturing cycles of vaccine batches.

The different constraints and steps of this "vaccine product by design" approach will be described.