The EU unveiled an ambitious plan to overhaul Europe's fragmented digital landscape on Wednesday that would allow Europeans traveling in other bloc countries to get their Netflix film fix or watch BBC iPlayer even when abroad.

Europe is the world's biggest economy, but despite its 500 million potential consumers, in many ways it remains a divided continent of 28 distinct economies, especially when it comes to media and the Internet.

Across the EU, digital services like music streaming site Spotify or shopping behemoth Amazon, often remain confined to national borders, with separate accounts required from one country to another.

"Let us do away with all those fences and walls that block us online," Andrus Ansip, the Commission's vice president for the digital single market, said in a statement.

The push to make all online media—whether music, film or TV—available across the EU is just one of several proposals that the EU will officially unveil in a policy package on May 6.

But already Ansip said the road to implement the plan will be arduous, despite being a top ambition of European Commission head Jean-Claude Juncker who has promised to put all his energy into creating a single digital economy in Europe during his mandate.

"I am under no illusions: it will be an uphill struggle," Ansip told journalists.

The biggest block to the plan is its sheer ambition, almost certain to draw a dizzying array of opponents from digital powerhouses—such as Google or Apple—to filmmakers and shopkeepers afraid for the livelihood and revenue streams.

Probably the thorniest issue to resolve are copyright and trademark laws that vary hugely across the EU and are the key barrier to blocking content mobility in Europe.

"Today the situation is lose-lose, People are ready to pay, but we are not accepting their money," Ansip said.

"We would like to create win-win," he said, adding that a more "modern" attitude to copyright could help ween users away from illegal downloads.

Ansip also unveiled measures to encourage cross border online shopping. Today, only 15 percent of consumers shop online from another country, the EU said.

"According to entrepreneurs, the price of parcel delivery and lack of transparency is main obstacle for (cross border) e-commerce," Ansip said.