

CONFERENCE PROGRAMME

17-18 November
2022 ESPAS Annual Conference

GEOPOLITICS IS BACK

CHARTING A COURSE FOR THE EU
IN A WORLD OF SHIFTS AND SHOCKS

EUROPEAN FORESIGHT DAYS



European Strategy and
Policy Analysis System

DAY TWO

Friday, 18 November 2022

14.00 -15.15: *The future of technology: key suppliers, new value chains and disruptive tech*

Semiconductors as a strategic resource

The drastic economic consequences of the chip shortages during the pandemic, especially for Europe's car industry, caused a surge in public awareness of the strategic importance of semiconductors. They are at the heart of every single electronic device that we have. Self-driving cars and AI are driven by the most advanced semiconductors. The realization of our critical dependence on foreign chip production has spurred drastic public action to correct the situation. We no longer put our faith completely in the integrated global supply chain and regional specialisation, in which Asia took the lead for semiconductors. Geopolitics is indeed back, and a public response in the form of the European chips act, strategies in the US and Japan, and member state efforts to ramp up chip investment all aim at further developing domestic semiconductor production capacities. If Europe is to raise its global share from 5 to 20 percent, then its capacity will have to grow at least eightfold. At least now, the investment plans have been announced in a European effort to redeploy and rebalance the supply chain for semiconductors. In the current global context, this will prove vital to preserve our industrial sovereignty.

Transatlantic technology cooperation

The Transatlantic Trade and Technology Council is an important initiative for technology cooperation between the US and Europe but we need to do more. But there are two big obstacles to overcome, namely the sense in the US that they can go at it alone and do not need anyone else, and the realistic fear in Europe to be taken over by American technology giants. Challenges posed by Chinese competition, climate change, future pandemics and food insecurity all need technological solutions. These are going to be very costly in terms of expertise and investment. Europe and the US need to work together if we are to have a hope of mobilizing what is needed to meet those challenges. The private sector can also not do this alone, public resources will be needed to fund pre-competitive research and develop emerging technologies. This calls for the creation of an advanced transatlantic research project agency uniting funding from Washington, Brussels and private investment. The US and Japan already have a joint chips research effort, and the sharing of facilities could vastly improve cost-efficiency. Europe would be a natural partner to join in such initiatives. President Biden will continue to champion transatlantic relations, so now

would be the time to lay the groundwork for a technology cooperation superstructure able to meet future challenges.

Holistic systems change

Technology is a key enabler to respond to modern societal challenges, but what is more fundamental is a paradigm shift: you cannot fix a broken system by making it more efficient, you need to fix the system itself. Realizing the green deal with the natural resources available will require holistic system change integrating more efficient resource management through a circular economy and the rethinking of things like consumer behaviour and mobility. Just 'greening' the sectors and practices already in place is not enough. Our economy will need to be reconceptualised.

Conclusion

The US is becoming more modest as it starts to realize that it needs foreign partners to compete technologically with China and respond to other future challenges. Europe on the contrary has reason to tune back its modesty as it now has relatively much more technological capacities to offer than it did at the heyday of Silicon Valley. Apart from public action and transatlantic cooperation in the field of technology, modern challenges require us to rethink our economic system at large.