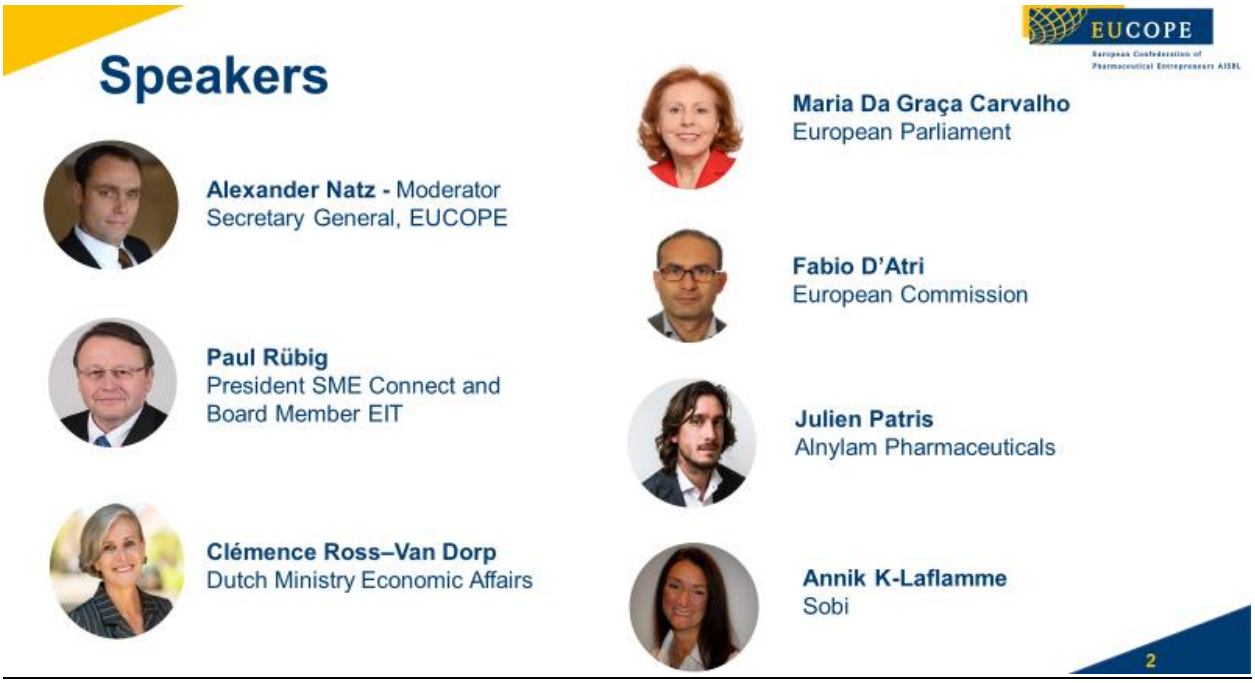
EUCOPE
European Confederation of
Pharmaceutical Entrepreneurs AISBL

CASE STUDIES ON RARE DISEASE THERAPIES DEVELOPMENT – A LABORATORY OF IDEAS FOR EUROPEAN INNOVATION LEADERSHIP

On 20 November, EUCOPE and SME Connect hosted an event titled "**Case studies on rare disease therapies development – A laboratory of ideas for European innovation leadership**". The event welcomed industry representatives and policymakers to discuss European innovation leadership in the pharmaceutical sector with a specific focus on orphan medicinal products and rare diseases. This webinar served as a laboratory of ideas, informed by the experience of medium-sized innovative pharmaceutical companies: Sobi and Alnylam. The event allowed the discussion of case studies in the context of a **series of recommendations** that EUCOPE developed as part of its approach to strengthen the **EU environment for the development of OMPs.**



EUCOPE
European Confederation of
Pharmaceutical Entrepreneurs AISBL

sme connect

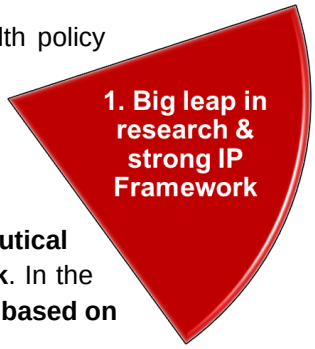
INTRODUCTION: THE AMBITIONS OF THE EU ENVIRONMENT FOR INNOVATION

Alexander Natz, **Secretary General of EUCOPE**, moderated the conversation and kicked-off the event by welcoming the audience and speakers. He introduced **Dr. Paul Rübig**, SME Connect President and Board Member of the European Institute of Technology (EIT). In his welcome speech, Dr. Paul Rübig highlighted the importance of developing and strengthening health systems during the pandemic. He also mentioned the importance of synergies between business, education, and research. He stressed that the cooperation between public health systems and SMEs is crucial during times of crisis and beyond.

MEP Maria da Graça Carvalho delivered a keynote speech highlighting the critical role of innovative companies that **invest in high-risk research** areas such as rare diseases. She shared her first-hand experience on the matter, detailing her role as responsible for the Specific Programme Implementing Horizon2020. She underlined that public funding remains crucial since smaller companies often do not have enough resources to carry out such ambitious projects on their own. The public sector is key for providing support and the opportunity to build public-private-partnerships should be seen as a huge added value. To conclude, she called for a Pharmaceutical Strategy for Europe that includes rare diseases and brings attention to this area that concerns millions of people in the EU.

SETTING THE SCENE: COOPERATIVE SOLUTIONS FOR THE EU OMP ENVIRONMENT

The event took place in the midst of the second wave of COVID-19, with health policy discussions very high on the agenda of policymakers in Brussels. Alexander Natz explained that this is a crucial moment and why small to mid-sized companies need an environment that supports companies in re-investing in areas with still high unmet needs.



A few days after the event, the European Commission published the '**Pharmaceutical Strategy for Europe' which includes a revision of the incentives' framework**. In the coming months and even years, **important policy proposals will be introduced based on this initiative,**

Looking ahead we need a holistic, integrated, and a predictable EU environment for the development of orphan medicinal products (OMPs), to **incentivise companies in re-investing in the R&D of treatments for rare diseases**. **Innovative payment models will also be critical to bringing innovative medicines to patients**.

The current state of play is different compared to 20 years ago when the regulation on OMPs was adopted. One of EUCOPE's commitments is to promote a collaborative approach throughout the lifecycle of OMP medicines. EUCOPE leads and partakes in targeted partnerships aimed at developing actionable proposals to strengthen the EU environment for the development of OMPs. Alexander touched upon a few of **our multi-stakeholder initiatives,** including the current **work on OMP incentives and on the use of real-world evidence to support research, payers, and HTA decisions** (Figure 1)

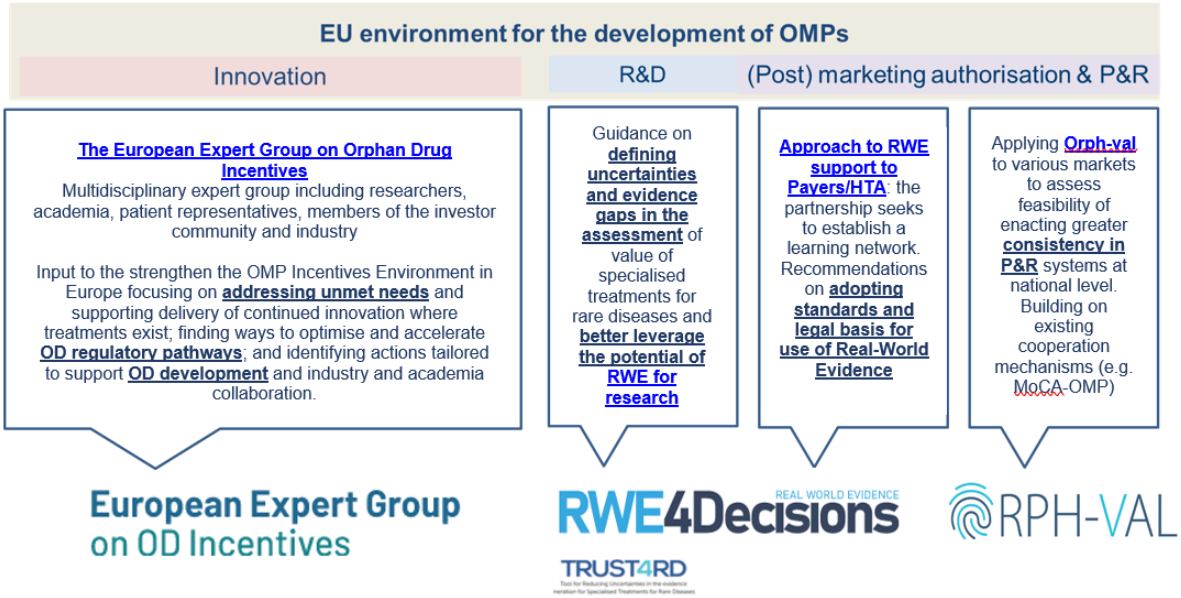


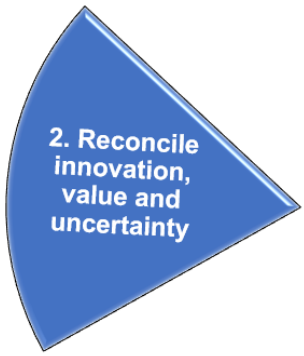
Figure 1

.

PHARMACEUTICAL INNOVATION IN THE EU: WHERE ARE WE HEADING?

Before diving into the two case studies, **Fabio D'Atri, European Commission**, shared his views about the upcoming policy developments of relevance to pharmaceutical innovation. The European Commission has been busy with the COVID-19 crisis. Nevertheless, many other files are important too, and the Commission has been working horizontally to put forward also non-legislative actions because these multiple files, including the European Health Union, are interconnected. He clarified that the Pharmaceutical Strategy is designed to create a future proof regulatory framework and support the industry in promoting research and technologies that really reach patients and fulfil their therapeutic needs while addressing market failures. **There is a clear understanding and willingness to re-think the general framework, not only in legislative terms but as a mindset.** In the coming months, a close collaboration with stakeholders will be crucial for implementing actions and paving the way towards a European Health Union.

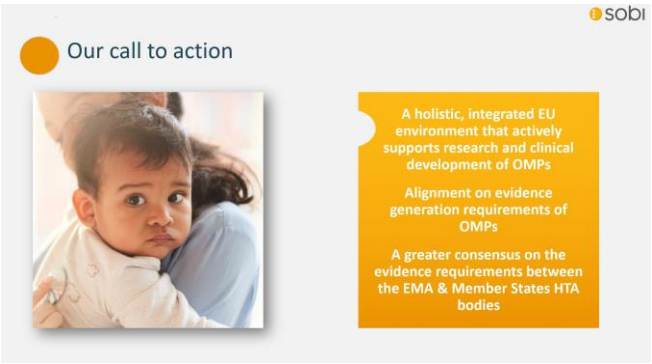
SOBI: THE COMMITMENT TO RARE DISEASE PATIENTS



Dr. Annik K-Laflamme presented an overview of the company, where she is the Vice-President and Global Head of Medical Affairs. The case study shared by Sobi shed light on the experience with a specific orphan drug journey and how it can take more than **20 years of R&D efforts to completion of the clinical research program and regulatory journey**.

Sobi is an international biopharmaceutical company, with a solid European footprint, specialised in rare diseases in the areas of haematology, immunology, and specialty care. Sobi's case study focused on the first phases of **medicinal product development, highlighting the discrepancies in evidence generation requested by regulatory agencies and Member States' HTA bodies**.

Annik K-Laflamme remarked the long-term challenges that companies with a portfolio focused on rare diseases go through. Researching and developing rare disease therapies is particularly challenging because of small and dispersed patient populations, lack of awareness of the disease among healthcare professionals, often poor natural history data of many conditions, unclear comparator treatments, but also fragmented national regulatory systems. While up to 70% of rare diseases affect children, many lack treatment. **Current paediatric incentives do not adequately stimulate the development of OMPs for paediatric use.** The hurdles to obtain the approval and, in some cases, the need of modifying a paediatric investigation plan (PIP) lead to increased administrative burden and longer time to market, discouraging the use of this reward.



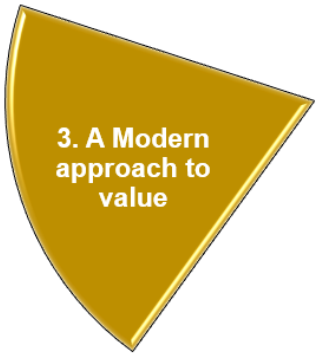
All these challenges explain the high level of risks associated with the OMP R&D. As such, a company needs a sustainable business model to further investment in R&D and continue to meet the needs of patients in the future. OMP policies need to be strengthened both at national and EU level to support innovation and they should reflect the value that orphan medicines bring to patients.

Further details on Sobi's case study are available: here

ALNYLAM: THE PROMISES OF THE FUTURE

Julien Patris, General Manager for Belgium and Luxembourg and Director Market Access & Policy for Europe, Canada, and Middle East Africa at Alnylam Pharmaceuticals provided another case study to illustrate the importance of some key policies to ensure the creation and growth of biotech companies from start-up to international commercial organisations.

Alnylam is a biopharmaceutical company founded in 2002 in Cambridge and leading the development of an entirely new category of medicines based on a Nobel-Prize winning discovery: RNA interference (RNAi).



RNA interference (RNAi) is a natural cellular process of gene silencing that represents one of the most promising and rapidly advancing frontiers in biology and drug development today. This is a revolutionary approach with the potential to transform the care of patients with genetic and other diseases.

The company invested in research for 16 years before the first-ever RNAi therapeutic was authorised in 2018. Today the company has begun to make some revenue. Alnylam has invested over 3.5 billion USD in research to date and continues investing significantly in research and setting-up of its organisation in Europe and beyond. Julien Patris stressed the multiple negotiations that are needed at national, regional, hospital, and even sometimes at individual/patient level to ensure access. In addition, **there are a series of additional pharmaceutical cost-regulation measures (pharmaceutical taxes, price revisions, etc.) that further erode the revenues.** Those factors combined determine how fast a biotech company can make a return on investment and their ability to invest, bring further innovation, be sustainable, and grow.

In that context, pharmaceutical policies can be streamlined to ensure fast access for patients. Within innovative Pricing and Reimbursement processes, it is possible to guarantee that patients get the innovation they need, biotech companies get the incentives and reward they deserve, and the healthcare system gets the value out of the therapies they pay for. **Innovative pricing and reimbursement mechanisms (Value-Based Agreements, Innovative Payment Models, etc.)** can ensure rapid access to innovation, much-needed revenues, and sustainable innovation for biotech and society. There is a clear **need for shifting the current cost-minimisation mindset to maximising the value of medicines** when making access decisions.

- **Reward innovation** & value
- **Provide room for growth** & revenues for fast-growing biotech companies investing in setting-up their local operations
- **Create safeguard to anticipate and mitigate any uncertainty** on the value of the product, or the financial impact related to its introduction
- **Incentivize reinvestment of revenues** into local R&D or Public Private Partnership

From minimizing cost to maximizing ROI of pharmaceutical spending on innovative drugs

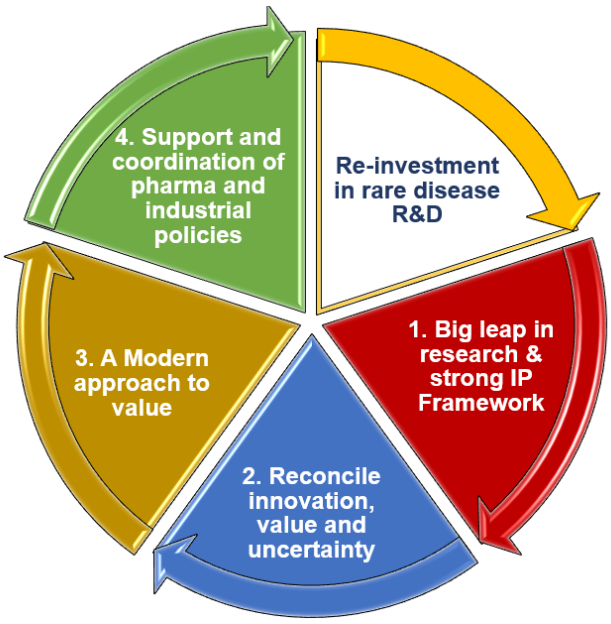
Further details on Alnylam's case study are available: here

A MEMBER STATE PERSPECTIVE: HOW TO STRENGTHEN THE EU INNOVATION ENVIRONMENT

Responding to the case studies and the experiences of the two companies, Sobi and Alnylam, **Ms Ross-van Dorp,** former Dutch State Secretary for Health, Welfare and Sport, and currently the Ambassador for the Action Program 'New chances Topsector Life Sciences & Health' coordinated by the Dutch Ministry Economic Affairs, provided a national perspective on the challenges and opportunities for biopharma innovation in Europe.

Ms Ross-van Dorp said that the **Netherlands made Life Sciences a strategic sector** for the country and it has been supporting many international biotech and pharmaceutical companies to make **significant investments** in the Netherlands. Cooperation and teamwork turned out to be key to boosting the sector. She noted the negative impact of the current scattered landscape of financing and the lack of a coherent approach of granting incentives. Finally, wise investments are needed to **support the whole ecosystem, including SMEs and start-ups,** and keeping a European and even a global perspective.

CLOSING REMARKS AND RECOMMENDATIONS



Following a round of Q&A, Alexander Natz concluded the discussion taking stock of the speaker's input and putting forward some recommendations. Speakers agreed on the importance of looking at pharmaceutical innovation from a long-term perspective. When we talk about investments, we talk about creating a **future-proof environment to support companies throughout their entire journey**, from research to market access **and, ultimately facilitating companies' re-investment in further research to the benefit of rare disease patients**.

For several reasons, rare diseases represent a risky investment that needs public and private support. **Developing more incentives for biopharmaceutical companies active in rare diseases to overcome challenges in basic research and clinical development** will be key**.**

As shown with the companies' case studies, the journey from R&D to the regulatory process is long and cumbersome. Regulators, HTA, and payers need to work together to optimise and streamline regulatory pathways for OMPs, **to reconcile innovation, value, and uncertainty**. This includes more acceptance of **Real-World Evidence (RWE), closer European collaboration on HTA, and further alignment between regulators' and payers' requirements.**

As science and pharmaceutical innovation evolve, so should HTA and payers' approach to assessing value. EUCOPE has been calling for **consistent and widespread support across Member States to develop and implement HTA Value Frameworks (VFs),** which capture the broader benefits the OMPs bring to patients and their families, health systems, the economy, and society. This will **require a modern approach to value and, among others, the uptake of innovative payment models.**

As shown by the Dutch example, strategic support to the biotech sector, considered as a key national economic asset, goes a long way. **OMP policies need to be supported and coordinated with pharmaceutical and industrial policies at the national and EU level**. With a much broader view, it is fundamental to increase investments in tomorrow's technologies and to imagine how our healthcare environment will be, not in a few months, but decades.

All concerned stakeholders, EU institutions, Member states, industry, academia, researchers, healthcare professionals, and patients need to work together to develop policies that strengthen centres of excellence and innovation hubs in Europe and stimulate the establishment of new ones.

Further reading

- Event's slides: available here
- A deeper dive in the EUCOPE's way forward on the OMP environment: available here
- A report developed with EURACTIV in view of the OMP and Paediatric Regulations Evaluation: available here
- The report commissioned to the Office of Health Economics on the challenge in the development of OMPs, unveiled at the European Conference on Rare Diseases (ECRD) 2020: available here