

# Ministers Answer Questions from the Audience

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In a successful [webinar](#) hosted by the Government of Asgardia on 13 Leo (30 June), Ministers spoke live about their short- and long-term plans. They were unable to answer all the many questions that kept coming in. Below we publish their answers to the remaining questions.



**Jacob Mulder, Minister of Manufacturing**

Question (Q):

As we scale up, the manufacturing budget is important so that Asgardia, the Space Nation, achieves its Strategic Road Map. Can you comment on your actions together with the Minister of Finance to be able to attract the required capitals in order to accomplish the traced Road Map for the Space Nation manufacturing?

Answer (A):

In the existing space industry, a lot of products, components and services are created and used. In my vision, manufacturing within Asgardia should focus on and facilitate integration and orchestration, paving the way for humanity to live and work in space. Asgardia can do this among others by providing a foundation with things like standards, a manufacturing approach, a project management approach and, later, a marketplace for products, components and services. Together with other Ministries, we are working towards a transparent economy, within Asgardia

and with external companies and organisations collaborating with Asgardia. All the activities within this economy and also within manufacturing should be business-focused. The activities should be commercial and 'for profit', because such a mindset has proven to be a good basis for innovation, robust deliverables and sustainable development.

As a result, only minimal capital is required, only among others as seed money for startups and also as a foundation for independent science, but most of the money in this economy will be in the form of parties like organisations and companies selling products, components and services to each other, for profit, whereby Asgardia provides and facilitates the foundation, as mentioned above. Manufacturing at Asgardia envisions the creation of a number of institutions and other activities, and the goal is that these will eventually be financially self-supporting and will play active roles within Asgardia's economy.



**Mark Bogen, Minister of Finance**

Q:

What next 3 steps have to be accomplished to keep scaling financial momentum?

A:

1. Build the economy to increase the number of taxable transactions. Asgardia needs more registered businesses that offer services and products which have a market.
2. Increase the number of residents to increase income via resident fees.
3. Build unique, patentable knowledge within Asgardia to attract investors.

Q:

As you stated in your presentation, since Solar is a fully exchangeable currency, we need to be able to transfer Solars to banks in other countries. Can you tell us how we relate to the banks of other countries when we think that we are a nation that has not yet been recognised?

A:

Of course, it would help to be recognised as a nation. However, nations do not accept each other's currency automatically anyway. That is why all important commodities traded are denominated in USD. So, every nation just needs to be able to have an exchange rate to the USD. If countries trade with each other, then they most likely will also accept each other's currency. If there is a country that wants to buy something from Asgardia, they most likely will accept the Solar. Especially, since the exchange rate is 1:1 with the EUR.

Before that happens, Asgardia needs to be able to offer an exchange of Solar back to fiat currencies like EUR or USD, for which a banking licence is needed. Banking licences are tied to many requirements which Asgardia is working to meet. As soon as we have done that, every Asgardian and owner of Solars will be able to exchange Solars easily online. This is the goal.



**Floris Wuyts, Minister of Science**

Q:

I would like to know about resources and would they be harvested from space or still from earth?

A:

Since we are aiming to reside in LEO (Low Earth Orbit), we will not harvest resources from space, such as from the moon. Harvesting has to come from the plants that are grown in the Arks.

Q:

How can the human being as an adaptive organism give us an advantage in space? From this, can we say that the human body can adapt to space radiation?

A:

We observed in previous research adaptation strategies by astronauts, but many of them are enhanced by the countermeasures programmes. Little, however, is known about the impact of radiation, since performing experiments with radiation is not ethical. Hence all information has to come from observational research in space, as well as from ground-based animal studies. Neither do we know yet the very-long-term consequences of a long-duration spaceflight, since it exists only for a few decades. But, likely, humans adapt in the long run.

Q:

For long-term residence in space, the problem of reproduction should encompass not only humans, but also a minimum number of species and organisms to construct a viable and sustainable living and livable ecosystem. Has there been any conceptual / theoretical work done on the structure and composition of such an ecosystem?

A:

Several models have been constructed in the past decades for sustainable ecosystems. The Melissa project is one of these. They become more important given the desire of several space agencies to organise human space missions to Mars by 2043. This knowledge is also needed for LEO-based stations, although they will have to use different resources than on the Moon and Mars. We need to focus in the coming years to address this issue.

Q:

It is clear that Asgardia is gaining momentum being ranked close to highly recognised brands. Can you mention a clear project being developed by the Science in Asgardia, the Space Nation? Are you promoting global cooperation and collaboration?

A:

Asgardia Science focuses on child birth development in space, as well as artificial gravity and radiation protection. As Minister of Science, my vision in the short run is to support scientific teams, worldwide, to perform research on each of the three topics. In the long run, we aim to have a dedicated institute that encompasses this research within its walls. For now, I consider the research done with IBMP (the SIRIUS project) and with Spaceborn big steps forward. More is to come within the coming year.