



EuroGEOSS Showcases: Applications Powered by Europe

## D5.12 Annual Report on Sustainability Booster



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## ABSTRACT

The overall aim of WP5 is the long-term sustainability of e-shape Pilots, their penetration in the public and private markets and the support of their upscaling. This will be achieved by providing a wide range of support measures that will be accessed under the so-called Sustainability Booster. The Sustainability Booster provides a dedicated online environment through which knowledge and tools can be accessed and requests for on-demand services can be made by e-shape Pilots. These on-demand services cover areas such as business planning, innovation processes and strategies, Intellectual Property considerations, as well as investment and funding opportunities. Qualified experts are available under the Sustainability Booster to provide these services. The components of the Sustainability Booster include:

- The [Market Trends Observatory](#), which monitors market trends, policy priorities, and technological developments in order to produce insights that can help e-shape Pilots, and the wider EO community as well, to capture associated opportunities.

- The [IP & innovation Office](#) which constitutes an online resource managed by a team of IP, innovation, and EO experts. Through this online presence, e-shape Pilots can get access to IP and innovation support provided in the form of online information resources as well as on-demand support from suitable experts.

- The [Investment & Funding Landscape Navigator](#), which forms part of a broader set of Investment Readiness Support activities. These follow and map additional sources of financial support for innovation and funding opportunities for the e-shape Pilots and can support the Pilots in identifying, selecting, and targeting investment and funding.

All these components have been implemented and are ready to serve their purposes. This report provides an overview of their implementation, usage to this date, and planning of activities throughout the lifetime of the e-shape project and beyond.

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## 1 INTRODUCTION

The overall aim of WP5 is to enable the long-term sustainability of the e-shape Pilots, their penetration in public and private markets and to support their upscaling. Through the so-called Sustainability Booster – a set of complementary support activities – knowledge, tools, and guidance are provided to the Pilots to achieve this goal. Moreover, the resources made available through the Sustainability Booster constitute a significant contribution to the EuroGEO community.

Chapter 2 of this report describes the components of the Sustainability Booster from their implementation phase to operational stage, including first notable results, as well as upcoming developments within each of the Sustainability Booster's core components.

Chapter 3 concludes with a summary of next steps of concrete actions for each component of the Sustainability Booster as well as further actions to secure the long-term sustainability of the Sustainability Booster itself.

## 2 COMPONENTS AND ACTIVITIES

The Sustainability Booster incorporates a number of activities and resources across work package WP5 (with further links to other work packages, in particular WP4) in support of e-shape Pilots' long-term sustainability. These aim to guide and support the Pilots along the innovation process through access to knowledge, tools, markets, capital, and technology.

At its core, the Sustainability Booster as a virtual office consists of the following components, which will be the focus of this report:

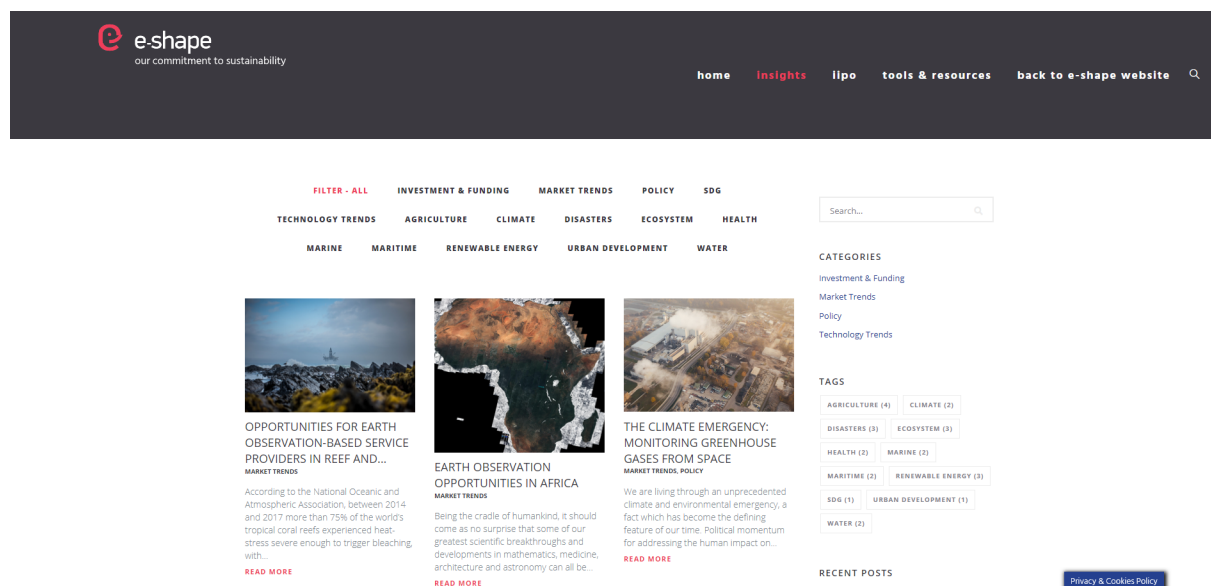
- The **Market Trends Observatory** as a means to provide up-to-date market (and technology) intelligence as input to Pilots' "roadmaps",
- The **IP & Innovation Office** providing information and expert support towards business planning and consideration of IP aspects,
- The **Investment Readiness Support** package with its tool to identify opportunities for investment and funding (the **Investment & Funding Landscape Navigator**) and guidance towards choosing and approaching suitable instruments of investment or funding.

Further components and activities related to the Sustainability Booster have been described in separate deliverables, such as: EOmall (D5.10), eoWIKI 2.0 (D4.8), Capacity Building (D4.5) including the EO Maturity Indicators (D4.6), as well as the Sustainability Support Package (D5.5) with the resulting Sustainability/Business Plans for each Pilot (D5.11). These will not be further addressed in this report.

### 2.1 Market Trends Observatory

The Market Trends Observatory component of the Sustainability Booster has a focus on providing access to knowledge that can guide the meaningful development of the EO-based services developed in e-shape. It is designed and will be operating as a tool that monitors, analyses, and interprets developments and trends in markets (and technologies) that are defining and changing the EO sector and the thematic areas which it supports.

Implemented as part of the Sustainability Booster’s website, it presents its content in an online environment which can be navigated by thematic areas (i.e. e-shape Showcases) and categories (market, technology, policy, investment).



**Figure 1: Market Trends Observatory, landing page (original implementation)**

### 2.1.1 Implementation

The Market Trends Observatory uses WordPress as its environment. A theme has been designed following the e-shape style guide. The development process was accompanied by e-shape’s communication team (WP6), ensuring conformity with communication guidelines. WordPress being a content management system allows for publication of articles in a contemporary fashion, supporting all end user devices and browsers as well as suitable means of navigation, search, and browsing of contents.

Details of the technical implementation have been previously described in deliverable ‘D5.3 First Market Trends Observatory’. Instead, here the focus is placed on some key processes (e.g. editorial process and collaboration with the Pilots) as well as usage statistics and improvements that will (i) ensure increased traction with visitors and (ii) better content for e-shape pilots and the EuroGEO community.

### 2.1.2 Editorial process

To maintain a good understanding of the market and the forces shaping it, a designated team is regularly monitoring and discussing matters such as market trends, policy priorities and technological developments, striving to interpret and share potential implications for EO-based activities. To this end, sectors of interest were allocated to the team members who have identified and follow an array of news outlets, databases, repositories, newsletters, RSS feeds, social media channels, etc. In many cases, this includes monitoring the online presence and published material by key stakeholders within the Copernicus ecosystem and beyond.

These efforts have ultimately resulted in a curated list of topics (regularly revised and updated) which, to some extent, focuses the team’s news scouting. Topics of interest are subsequently researched and, if necessary, interviews with experts (from among the e-shape partners and beyond) are conducted. The resulting articles then go through a series of revision cycles (internal and / or with the contributing experts) to make sure the information is presented in an accurate and clear manner.

The established editorial process seeks to ensure a balanced coverage of the sectors and a continuous flow of published content.

The Market Trends Observatory is to be regularly updated throughout the project lifetime so as to deliver insights of interest to the EO-based business.

### 2.1.3 Collaboration with Pilots

The collaboration with Pilots is twofold: (i) involving experts in the development of written content for the benefit of the community and (ii) in a consultative role to ensure the produced insights are of relevance. At any possible occasion, contents are promoted among e-shape partners and feedback is encouraged. Selections of topics to be covered is regularly triggered by actual knowledge needs identified during consultations in the course of WP5 support activities.

At this occasion, we would like to thank e-shape partners for their previous contributions:

- [Wildfires going extreme – Earth Observation to the rescue!](#) has been informed by NOA
- [Swift as the wind: current and upcoming trends in the wind energy sector](#) has been informed by DTU
- [Navigating the landscape of EO platforms](#) has been informed by OGC
- [Health check from above](#) has been informed by NOA
- [How Earth Observation is helping us rethink our approach to agriculture](#) has been informed by VITO
- [Policy, market and technology trends in EO-assisted water resource management](#) has been informed by DEIMOS and SMHI
- [Renewable energy and Earth Observation: photovoltaics in the centre of solar-related market, policy and technology trends](#) has been informed by MINES ParisTech)
- [EO achievements for disaster resilience bring new business opportunities](#) has been informed by NOA
- [Common Agricultural Policy – Driver and Beneficiary of Earth Observation solutions](#) has been informed by NEUROPUBLIC

### 2.1.4 Usage statistics

The Market Trends Observatory online environment was launched in May 2020 and has been regularly updated ever since. Whilst no major outreach campaign has been launched in this timeframe – as the implementors judged that only full capacity would render this advisable – each insight produced has been promoted through Twitter and the official e-shape account as well as other related accounts.

In the period of 1 May 2020 to 15 April 2021, there have been:

- 815 unique users
- 1,734 sessions
- 5,631 page views

Notably, articles promoted through social media or the promotion of the website as such during events regularly saw peaks of users visiting. The promotion through e-shape's communication team as well as direct promotion at suitable occasions will thus be continued. In addition, as discussed further



below, the launch of the fully operational capability of the Sustainability Booster will mark the point as of which much heavier promotion of its content and services is pursued.

Of the 815 unique users acquired during the indicated period

- 245 came through direct links,
- 142 came through social media postings.

At this time, two components of the Sustainability Booster had considerable content of interest. Of the 5,631 page views during the indicated period

- 876 views were counted for the landing page of the Investment & Funding Landscape Navigator,
- 673 view were counted for the landing page of the Insights section.

Interests are constantly measured to derive information needs and guide future content creation. For reference, we include below the monthly top three articles alongside the number of users and new users for calibration:

Titles of top 3 articles	Number of reads								
	Aug 20	Sep 20	Oct 20	Nov 20	Dec 20	Jan 21	Feb 21	Mar 21	Total
<a href="#">Policy, market and technology trends in EO-assisted water resource management</a>	43	32	19					37	131
<a href="#">Renewable energy and Earth Observation: photovoltaics in the centre of solar-related market, policy and technology trends</a>			10				3		13
<a href="#">European Green Deal in need of monitoring solutions</a>		11	9		5		4		29
<a href="#">Swift as the wind: current and upcoming trends in the wind energy sector</a>	16								16
<a href="#">The opportunity and challenge of building a Planetary Digital Twin</a>	15			27		3			45
<a href="#">A far-reaching pandemic – COVID-19's impact on sectors where EO services could make a difference</a>		21							21
<a href="#">How Earth Observation is helping us rethink our approach to agriculture</a>				15	8				23
<a href="#">Wildfires going extreme – Earth Observation to the rescue!</a>				15					15
<a href="#">Would your research benefit from taking a good look at our planet? Explore Earth Observation funding opportunities with OCRE</a>					8				8
<a href="#">Key EO developments expected to define 2021 (part I)</a>						13			13

Titles of top 3 articles	Number of reads								
	Aug 20	Sep 20	Oct 20	Nov 20	Dec 20	Jan 21	Feb 21	Mar 21	Total
<a href="#">Key EO developments expected to define 2021 (Part 2)</a>						15			15
<a href="#">THE CLIMATE EMERGENCY: Monitoring greenhouse gases from space</a>							7	21	28
<a href="#">Earth Observation Opportunities in Africa</a>								72	72
Total Users /New Users	38 /32	39 /29	72 /56	54 /43	32 /25	26 /20	30 /20	395 /384	

### 2.1.5 Improvements

While constantly listening to and further anticipating the information needs of the e-shape community (i.e. Pilots), attention is also being focused on making this information both digestible and accessible. Beyond insight articles, further formats are being developed to convey specific messages to the intended recipients in an appropriate way. This includes the use of social media (i.e. Twitter) for shorter news in a “rapid fire” fashion, as well as the introduction of formats such as podcasts. User interaction on the website has been analysed and findings have been used in changes to the user interface for improved navigation, annotation, and presentation of contents. These improvements will be progressively integrated on the fully-fledged Sustainability Booster website.

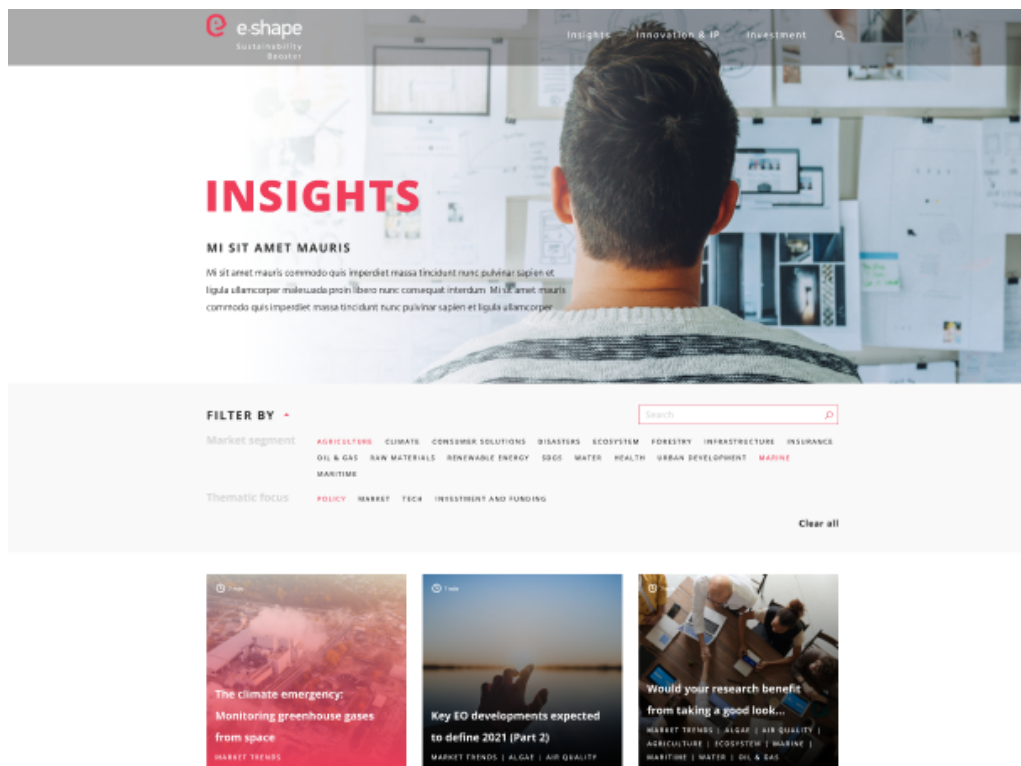


Figure 2: Mockup improved navigation and display of Market Trends Observatory contents

## 2.2 IP & Innovation Office

The IP & Innovation Office is a combination of online resources as well as expert support to e-shape Pilots in matters related to management of intellectual property (IP) and innovation. Online resources can be navigated through along e.g. a Pilot's innovation stage (early, development, commercialisation, scaling) or the domain of interest (IP, innovation).

A growing repository of FAQs answers common questions and guides to useful resources. A library of resources including publications, presentations, tutorials, and links provides relevant information for Pilots at all stages and with varying go-to-market strategies. So-called “Stories of IP and Innovation” present use cases in a storytelling fashion, giving examples of typical scenarios and the considerations related to IP and innovation management to be made in that given context. A contact form acts as one possible gateway to on-demand support.



Figure 3: Mockup of renewed IP & Innovation Office landing page

Implementation of the elements described above have been concluded at the same time as this report. The activities of the IP & Innovation Office are described in greater detail in deliverables D5.4 and D5.13. An assessment of usage and impact of the services provided through the IP & Innovation Office will be subject of the separate deliverables D5.18 (M36) and D5.24 (M48).

## 2.3 Investment Readiness Support

The “Investment Readiness Support” activities offer guidance to e-shape Pilots (and the greater EO community) related to access to finance as one means to secure financial sustainability, also beyond the lifetime of the e-shape project. These activities aim to follow and map additional sources of support for innovation and funding opportunities and to support the Pilots in identifying, selecting, and e-shape

targeting investment and funding. To this date, the activity was focused on provision of information about investment and funding opportunities. This is reflected by the implemented Investment & Funding Landscape Navigator that contains general knowledge about investment terms and options, as well as a database of investment and funding opportunities relevant for EO companies.

With Pilots maturing and with the onboarding of already more mature Pilots, an increase of demand for actual investment support is to be expected. This demand will be met with individual coaching and mentoring on the subject, training and guidance in preparation of pitch decks and pitches, as well as webinar-based investment-readiness trainings.

### 2.3.1 Investment & Funding Landscape Navigator

The Investment and Funding Landscape Navigator is designed as a tool that allows users such as e-shape Pilots to find vehicles of access to finance matching their specific context. This can either form the base for support services offered under the Investment Readiness Support or complement these.

The tool is integral part of the Sustainability Booster website: <https://sustainability.e-shape.eu/investment-funding/>. Implementation, functions, and sources are described in more detail in deliverable D5.6.

### 2.3.2 Expert consultations

With the aim to listen to both the receiving and providing side as regards interests, requirements, and experience in the context of investment and funding, interviews have been conducted with both investors as well as start-ups. An interview with Fabrice Testa (Tech Entrepreneur, Business Angel & Mentor, Chairman of EBAN Space, Co-Chair of Luxembourg Space Tech Ang) revealed insights about available funds, the interest of e.g. deep tech investors in the sector, and success stories. Mr Testa also had valuable advice for start-ups as regards when to consider private investment, how to position themselves, and how to educate and convince investors about the attractiveness of EO-based solutions. An interview with Przemyslaw Zelazowski (Founder and Director of SatAgro, an EO start-up with focus on agriculture) gave insights into pros and cons of choosing or not investment beyond the seed phase and what other forms of commitments beyond money – such as access to customers, experience, data etc. – are valuable assets of a potential investor or partner.



**Figure 4: Scene from interview with Fabrice Testa**

Parts of the interviews have been presented during e-shape's General Assembly in October 2020. The recorded session can be found here: <https://cloud.mines-paristech.fr/index.php/s/y6vI5NfihyiSg2y>.

### 2.3.3 Consultation with Pilots

With the launch of the Investment & Funding Landscape Navigator, the overall activity has been promoted among all Pilots through a dedicated session during e-shape's General Assembly in October 2020. With 882 page visits ever since (as of 20 April 2021), the landing page of the Investment & Funding Landscape Navigator is the currently most visited page of the Sustainability Booster's online presence.

All Showcases have been contacted to offer a further dedicated session to not only provide guidance for the use of the Investment & Funding Landscape Navigator, but mainly to explore Pilot's interest in Investment Readiness Support and their specific support needs. From the performed sessions it became apparent, that most Pilots lack basic understanding of the matter and the requirements (e.g. skills, documentation) needed to attract and secure investment or funding. Many of these Pilots considered themselves not yet at a stage where they would be ready to engage with investors.

A different picture is shown with the entry of newly onboarded Pilots, five of which have already been onboarded and another five still to come. These newly onboarded Pilots are typically more mature both in their product or service innovation stage as well as in terms of their business. While only three out of five of the newly onboarded Pilots responded to our initial survey on their support needs, the responses were as follows:

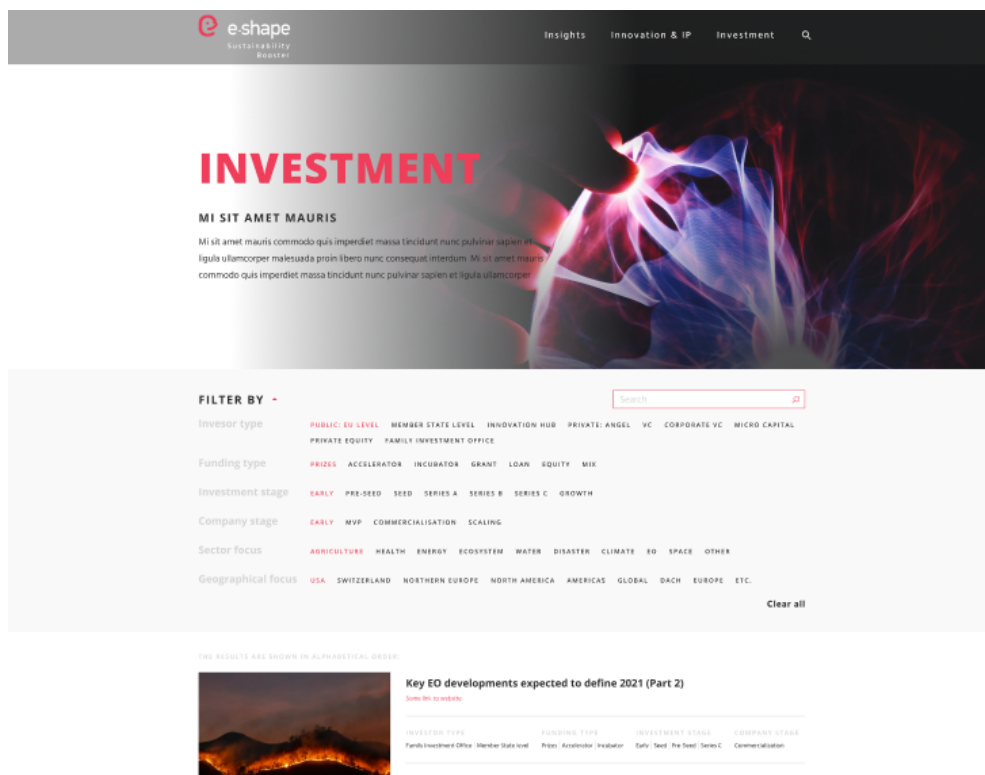
- 2 out of 3 are interested in access to further funding or investment
- 1 out of 3 claim to have pitching experience as well as the documentation ready that is needed to approach investors
- 2 out of 3 have previously participated in acceleration programmes

- 3 out of 3 have put thought into the pros and cons of investment and funding options for them
- 1 out of 3 used Grants and projects as their initial funding; 1 out of 3 benefitted from a spin-off programme of their university; 1 out of 3 purely financed itself through bootstrapping

The responses indicate a higher pre-existing knowledge about investment and funding issues as well as specific needs which will be followed up. The initial 27 Pilots likewise are maturing over time and their investment and funding needs will be regularly monitored to offer guidance and support when and where needed.

### 2.3.4 Next steps

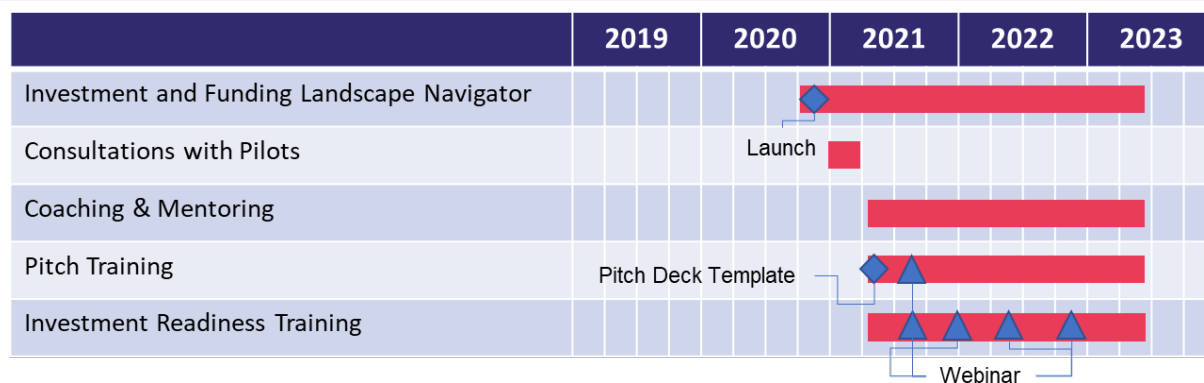
Contents of the Investment & Funding Landscape Navigator are regularly updated based on new information about existing entries (e.g. relevant investments) or as new entries based on the overall activities of the Investment Readiness Support. A redesign of the page is underway, addressing its usability (navigation, search) as well as responsiveness (load time).



**Figure 5: Redesign Investment & Funding Landscape Navigator, mockup with dummy content**

As for the overall Investment Readiness Support, based on interaction with Pilots the focus has been set on themes for coaching/mentoring and training. We will continue to reach out actively to all Pilots to identify their needs, promote our support services, and initiate support were needed, also in the context of set Challenges defined by Sprint 2.





**Figure 6: Timeline Investment Readiness Support**

Contents for training are being prepared and will be made available through the public website of the Sustainability Booster. Pilot-specific support will remain between the respective Pilot and the Sustainability Booster’s acting experts to respect confidentiality.

### 3 OUTLOOK

With the Sustainability Booster and all of its components now fully functional, just in time for Sprint 2 – a majority of Pilots now starting to address WP5-related challenges number #11 (“Carry on an action to boost the sustainability of Pilots”), #12 (“Increase the number of operational integration into user workflows”), and #13 (“Improvement in sustainable uptake and exploitation of Pilot in different markets”) – we are ready to respond to demand as well as to proactively determine needs and to support all Pilots in achieving not only their defined challenges, but indeed long-term sustainability for the business they aim to generate with their product or service.

The tools used – website, training materials, databases, templates etc. – will be continuously maintained and improved based on interaction and consultation with Pilots as well as monitoring best practices in the respective subject:

- The Market Trends Observatory is regularly updated with new insights, at least one every two weeks. New formats beyond the currently used feature articles are explored, including the use of social media for shorter, more frequent updates, podcasts, or deep dive analyses.
- The IP & Innovation Office will maintain a growing repository of useful information and is ready to discuss IP considerations and implications as well as innovation process related topics with the Pilots and to guide them in their paths.
- The Investment Readiness Support activities maintain information about investment and funding opportunities as well as relations with the investment community and are ready to guide – through direct interaction as well as training materials – Pilots on their way to attract suitable vehicles of investment and funding to ensure financial sustainability beyond the lifetime of the e-shape project. Investment trends will be followed and regularly reported through the Market Trends Observatory.

Finally, with the Business Plan of the Sustainability Booster being prepared, the long-term sustainability of the activity itself is being explored. This will include a thorough market analysis, definition of target markets and users including their sizes, business models and provision schemes, marketing strategy, IP considerations, as well as a financial analysis and risk assessment. The goal is to

exploit and operate the Sustainability Booster beyond the lifetime of the e-shape project to the benefit of the greater EO community.

## 4 APPENDIX I: INSIGHT ARTICLES

To this date, the following articles have been published under <https://sustainability.e-shape.eu/insights/>.

Title	Author	Publishing date
<a href="#">EO achievements for disaster resilience bring new business opportunities</a>	Ruuta Skujina	07/04/2020
<a href="#">Renewable energy and Earth Observation: photovoltaics in the centre of solar-related market, policy and technology trends</a>	Stefka Domuzova	07/04/2020
<a href="#">Policy, market and technology trends in EO-assisted water resource management</a>	Stefka Domuzova	08/04/2020
<a href="#">How Earth Observation is helping us rethink our approach to agriculture</a>	Daire Boyle	15/04/2020
<a href="#">Health check from above</a>	Nico Thom	22/04/2020
<a href="#">European Green Deal in need of monitoring solutions</a>	Nico Thom	29/04/2020
<a href="#">Navigating the landscape of EO platforms</a>	Nico Thom	30/04/2020
<a href="#">Monitoring the status, function, and disruption of ecosystems</a>	Nico Thom	05/05/2020
<a href="#">Swift as the wind: current and upcoming trends in the wind energy sector</a>	Stefka Domuzova	07/08/2020
<a href="#">The opportunity and challenge of building a Planetary Digital Twin</a>	Valentina Balcan	13/08/2020
<a href="#">A far-reaching pandemic – COVID-19’s impact on sectors where EO services could make a difference</a>	Valentina Balcan	16/09/2020
<a href="#">Wildfires going extreme – Earth Observation to the rescue!</a>	Nefeli Politi-Stergiou	05/10/2020
<a href="#">Would your research benefit from taking a good look at our planet? Explore Earth Observation funding opportunities with OCRE</a>	Valentina Balcan	09/11/2020
<a href="#">Show me the money! – Financial opportunities for emerging Earth Observation-based businesses</a>	Nico Thom	14/01/2021



Title	Author	Publishing date
<a href="#">Key EO developments expected to define 2021 (part I)</a>	Lefteris Mamais	21/01/2021
<a href="#">Key EO developments expected to define 2021 (Part 2)</a>	Lefteris Mamais	28/01/2021
<a href="#">THE CLIMATE EMERGENCY: Monitoring greenhouse gases from space</a>	Dimitrios Papadakis	15/02/2021
<a href="#">Earth Observation Opportunities in Africa</a>	Daire Boyle	24/03/2021
<a href="#">Opportunities for Earth Observation-based service providers in Reef and Rigs-to-Reefs monitoring</a>	Valentina Balcan	07/04/2021