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Innovation for Sustainable Development Network

inno4sd - Innovation for Sustainable Development Network

Prospectus - 2019

December 2018

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Results 2018 & Prospectus

Results 2018 & Prospectus

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Background

The inno4sd was created in the year 2015 as part of the work programme of the H2020 Green.eu project.

The creation of the Innovation for Sustainable Development Network (inno4sd) respond to the recommendations and findings of the EU expert group *Follow-up to Rio+20, notably the SDGs* in the report" The *role of science, technology and innovation policies to foster the implementation of the sustainable development goals (SDGs)*".[1]

The European Global Transition Network on Eco-Innovation, Green Economy and Sustainable Development (in short, Green.eu) is a CSA project under H2020(grant agreement 641974). It runs for 48 months - from February 2015 to January 2019. In essence, this CSA had the intention to reach out to several international initiatives and stakeholders and to contribute to the continuous positioning of Europe as a global leader in sustainability and innovation.

The project is implemented by leading institutions working on eco-innovation, green economy and sustainable development: University College London - Institute for Sustainable Resources, Kings College London, Stellenbosch University, University of Ferrara UNIFE, Catholic University of Milan, Research Institutes of Sweden, TECNALIA Research & Innovation, Centre for Economic Research ZEW, ICLEI - Local Governments for Sustainability (European Secretariat), Greenovate! Europe, and Knowledge SRL.

Green.eu and inno4sd are coordinated by the Netherlands Organisation for Applied Scientific Research TNO.

Goal and ambitions

The work programme of the H2020 Green.eu project was designed to identify and consolidate the global knowledge around eco-innovation, green economy and sustainable development. While having a European focus, it was designed to create a network and an online platform for the integration and sharing of knowledge around innovation, strategies and policies into sustainable development actions, worldwide.

Ultimately, the project would provide (European) knowledge and services related to eco-innovation to stakeholders beyond the EU.

The network has now evolved to have a broader focus on innovation for sustainability, incorporating social innovation and other perspectives beyond the narrower initial focus on eco-innovation.

One of the core ambitions of the project was the creation of a global network for collaboration and knowledge sharing: the inno4sd network. The network brings people together from all sectors related to the green economy, sustainability and innovation.

An online platform of the network will be launched in January 2019. A demo version is available at at http://new.inno4sd.net/

The inno4sd network

The inno4sd network has been created as part of the work programme of the H2020 Green.eu project.[2] It is one of the deliverables included in the Description of Work of the H2020 Green.eu project. It is

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[1] The full report is available at https://publications.europa.eu/en/publication-detail/-/publication/de98f33c-8907-11e5-b8b7-01aa75ed71a1/language-en
[2] **http://www.inno4sd.net/**

an action-oriented initiative, which will support the practical application of solutions to stimulate transformative change and support sustainable development, worldwide.

The original motivation for the creation of Inno4sd can be attributed to the identification of a gap in the international landscape of networks, programmes and initiatives dedicated to support innovations for sustainable development: while several specialised actors, organisational bodies and networks exist with their specific purposes, objectives, and target audience, these do not tend to engage much with each other.

The inno4sd network brings together networks, entities and individuals dedicated to innovation for sustainable development with the aim of reducing fragmentation and supporting collaboration, whilst engaging policy-makers, research & development, and businesses to achieve the sustainable development goals. In a nutshell, the inno4sd network aims to advance the state-of-the-art in innovation for sustainable development by providing 12 services grouped in the following categories:

For each of inno4sd's goals, the network supports the development of specific services and activities as indicated in the figure below.

Connectivity

1. Reducing fragmentation by connecting multiple networks for transformative change;

Knowledge

2. Enabling knowledge sharing, collaboration and co-production for transformative change

Guidance

3. Supporting policy-makers, businesses, and researchers to develop relevant strategies for transformative change.

Milestone: To date, over 300 relevant networks, entities and initiatives have been identified – at the supranational, national, and local levels. About 100 of them have been engaged in the activities of the inno4sd network and have expressed their interest to actively participate in the future activities – with the potential to reach many more. The potential outreach of the inno4sd network has been estimated in over 50,000 people.

Figure 1 inno4sd services as of November 2018

Overview of results and flagship initiatives

The work programme of the H2020 Green.eu project has produced over 43 deliverables and 11 milestones. This has resulted in the production of about 70 documents and online (web-based) applications – including several high-impact documents and initiatives. Below we list some of the most significative and with the higher degree of progress:

I. International events

One of the core activities of the Green.eu project and the inno4sd network has been linked to the organisation of events. It has included large science-policy dialogues (symposiums), seminars, workshops and capacity building events – all disseminating European knowledge around eco-innovation for green/circular economy and sustainable development.

In the period 2015-2018 three large symposiums were organised as part of the work programme of the H2020 Green.eu project:

- *Brussels, October 2015*, as a small event focusing on the start of the project and the network.
- *Cyprus, November 2016*, in collaboration with Future Earth under the topic of the role of eco-innovation in the nexus energy-water and food.
- *Pretoria, November 2017*, back to back with The WE Africa Festival at the University of Pretoria, and in collaboration with the National Council for Scientific Research of South Africa, the National Cleaner Production Centre, among others. The topic of this symposium was "EU-Africa dialogue on Innovation for Sustainable Development". The Head of the EU Delegation Dr M*arcus Cornaro* opened the event and prominent South African government officials delivered keynotes to the audience.
- Brussels, November 2018. The fourth and final symposium of the H2020 Green,eu project was organised in

Brussels, from the 7-9 of November 2018 with the active engagement of over 120 participants. The symposium was organised in co-operation with Future Earth and the Sustainable Development Solutions Network, with the support of Mr. Gerben-Jan Gerbrandy MEP (Netherlands), the Japan Science and Technology Agency, the Green Growth Knowledge Platform, and the Mexican Ministry of Foreign Affairs. A high-level dialogue at the European Parliament was held on Nov 7th focused on SDGs and the role of Research, Science, Technology and Innovation (STI) for achieving them. It will host a debate about monitoring progress on achieving the SDGs and the role of innovation and STI roadmaps. During this event a global initiative on knowledge and innovation for SDGs will be launched. The inno4sd multi-stakeholder, policy-science symposium on Nov 8-9th focuses on the lessons learnt about the role of transformational and mission-oriented innovation policies and roadmaps supporting action-oriented solutions and communities of practices. The programme is organised around brief presentation of examples and case studies, with a large amount of dialogue, debate and discussions.

Results: Until September 2018 about 30 events have been organised around the world with an estimated outreach of 3000 people. Events have helped to identify potential members of the inno4sd network (research institutes, Universities, city-level officials, business and academic networks etc.).

The 2019 inno4sd symposium will be held in Mexico City, in collaboration with UN SDSN and the inno4sd members Universidad IberoAmericana, ITESO Universidad Jesuita de Guadalajara, Greenmomentum, National Institute of Clean Energy, and with the financial support of the Mexican

Government. At least 3 additional workshops will be organised by inno4sd founding members UNIFE, Catholic University Milano and ICLEI.

II.   Profile.net

This is a global database of experts, practitioners and policy makers in areas related to innovation for SDGs. A description of the tool is available at the following site: http://www.inno4sd.net/news/discover-the-inno4sd-profilenet.kl

Currently, Profile.net features special groups of practitioners interested in topics within the scope of inno4sd activities. The groups 'Networks on eco-innovation at the local level' and 'Unleashing eco-innovation at sub-national levels' are communities of practice that addresses networks working with local actors. The initial focus of the former group is on nature-based solutions and participatory approaches to green and circular economy. The focus of the latter group is to answer the policy question of what should be the role of sub-national government bodies in this process.

Expected results: Additional groups can be created. An estimation of +1000 experts in green and social innovation has been as the potential outreach of the tool.

III.   Global interactive database

This is a geographical illustrations of items/actions related to green and social innovation for green economy and SDGs: policies, research programmes, best practices, business initiatives, organisations, etc.

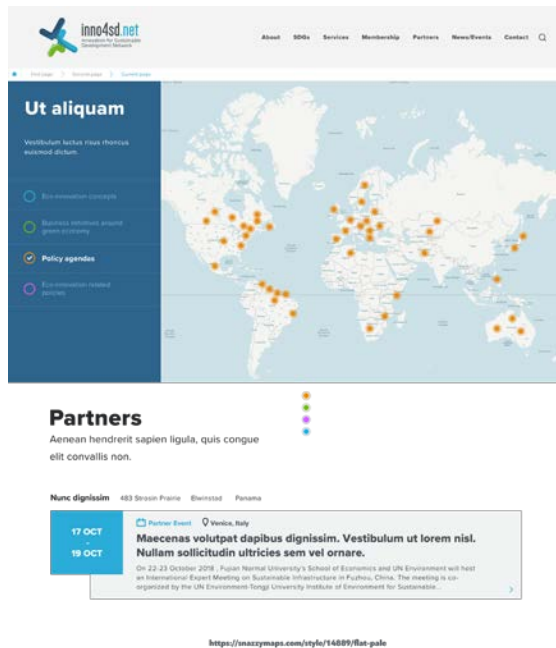The list below includes all of the maps developed within the H2020 Green.eu project:
• Map of global eco-innovation initiatives
• Map of business initiatives around green economy

- Map of eco-innovation related policies
- Map of STIR policy reviews (inno4sd open process of sustainability transitions policy evaluation)
- Map of business-policy integrated best practices

https://snazzymaps.com/style/14889/flat-pale

The inno4sd network has commissioned the production of the above maps into a single web app with an "open data" format. With a single click it will allow external users to nominate new data entries into the database. The project team will validate the data and allow new entries to be displayed as a way to implement quality control.

Current and expected results: In its current form the database contains over 300 data entries (partners, projects, initiatives, policies, best practices. etc). A possibility being explored is to link the inno4sd global maps to the Global Partnership for Sustainable Development Data.[3] An possibility is using OpenStreetMap and the Data4SDGs toolbox initiated by the

Sustainable Development Solutions Network (SDSN) – an entity in the process of establishing a strategic partnership with inno4sd.[4]

IV. Communities

Inno4sd communities are envisaged as grassroots and self-governed multi-stakeholder groups. Their aim is to exchange knowledge and to identify concrete opportunities for the implementation of action-oriented projects.

Expected results: the new inno4sd website will contain a dedicated section for external users to create questions, online threads and forums.

V. Knowledge repository on learning and innovation for the SDGs (I4SDGs)

The I4SDGS knowledge repository is the evolution of one of the deliverables of the H2020 project that required the provision of online services..

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[3] http://www.data4sdgs.org/
[4] OpenStreetmap is an open access platform supported by inno4sd founding partner

University College London,
https://www.openstreetmap.org/about

The knowledge repository on I4SDGs prominently features European and global knowledge in topics related to eco-innovation, green/circular economy, climate action and resource efficiency.

It caters for both a specialised and regular users who are interested in learning more about the role of innovation in the abovementioned topics. Currently in the English language but with the technical features to be translated into multiple languages.

*Expected result: The I4SDGs repository was launched on November 7th, 2018 at the inno4sd High-level event at the European Parliament. Inno4sd is currently in conversations with well-established global initiatives to explore how to create synergies with their own platforms and resources to maximise impact. T*he infrastructure and hosting of repository has been created and is fully operational. However, content needs to be permanently added. A campaign to add additional (open) data will be promoted as part of the work programme in 2019. *The target for users has been set to 50,000 worldwide*

VI.   Inno4sd academy

The inno4sd academy is the educational component of the network. It is foreseen to include a mobility programme and summer/winter schools for PhD and early career researchers and training workshops (business, researchers, intermediary organisations, policy makers).

In a second phase, a global postgraduate programme in eco-innovation, sustainable energy, green economy and sustainability and an online self-paced course (MOOC) would be created.

Current and expected results: Two PhD and early career academies have been organised with an overall participation of 45 postgraduate students and mentors (Pretoria 2017. Ferrara 2018). The first phase of the post-graduate training is under development. Strategic alliances are currently explored, including the application to become a UNESCO Chair and UNIWIN network.

VII.   MOOCs/Webinars

The inno4sd videos are a mixture of symposium presentations, educational talks, and presentations of network services. The inno4sd multimedia content has been produced as videos for the inno4sd YouTube page.

12 webinars are to be produced within the duration of the EU-funding. In the year 2017 the first webinar was produced with a presentation of the profile net tool.

In the first semester of 2018 an additional twelve video-webinars series have been produced under the following topics:
- What is Innovation for Sustainable Development?
- Introduction to Green-economy
- Financing systems for sustainable development

The content of the audio clips and videos is currently provided in the English language. Additional languages may be considered for the future services of the network.

Current and expected results: Until November 2018 a total of 76 videos have been produced and uploaded into the inno4sd channel. Additional webinars may include the following topics:
- *Inclusive innovation*
- *Eco-innovation measurement*
- *Eco-innovation policy*
- *Circular Economy and cities*
- *Good Practices*

During 2019 the above mentioned webinars can be converted into a self-paced massive online course (MOOC). One of the proposed points in the collaboration with UN SDSN is the creation of a professional MOOC on innovation for sustainable development. However, the estimated budget for such MOOC would be in the order of 120-150k EUR.

VIII. Valorisation

In January 2017 inno4sd organized a special workshop with RTOs in order to explore the creation of the 'Sustainable Innovation Hub' – the response was overall positive.

A proposal has been made to strategic partners to establish a collaboration and jointly de-sign and execute a programme of knowledge valorisation and exploitation. It may focuses on the following components:

- Valorization of knowledge and speeding up the innovation process (from TRL 3 to 8), both supply and demand-driven.
- building innovation ecosystems, supporting and making entrepreneurs.
- analysing the framework conditions for innovation,

Expected results: the creation of a knowledge valorisation programme with strategic partners and an online tool to self-assess the prospects of project with lower TRL. A number entities such as Climate KIC, the ELAN network, Greenmomentum, UNLEASH and others have also expressed their interest to explore a collaboration in this area.

IX. Policy outlooks

The Inno4SD Policy Outlooks is a series that focuses on the horizontal policy issues or transversal topics relevant for public policy supporting innovation for sustainable development.

The first series features 12 outlooks. Some examples of existing policy outlooks are provided below:

1. Why should public policy support transformative eco-innovation?
2. How can policies supporting innovation deliver on SDGs?
3. How to support eco-innovation in trade policy and international trade regimes?
4. Can eco-innovation respond to NEXUS challenges?
5. Can public procurement in cities support circular economy?
6. How to account for macro-economic framework conditions in designing eco-innovation policy?

A second series will be open to external contributors (knowledge partners).

Results: inno4sd policy outlooks is a publication that goes beyond a standard policy briefs; they support policy guidance by answering relevant questions and issues raised by policy makers and stakeholders active in the Innovation for Sustainable Development (Inno4SD) network.

X. Roadmaps

Contact details: inno4sd steering board, hosted by the Netherlands Organisation for Applied Scientific Research TNO, Anna van Buerenplein 1 / PO box 96800, 2509 JE the Hague, The Netherlands. Email: info@Inno4sd.net

The service of 'roadmapping' has a policy focus In the context of inno4sd,. It is viewed as a tool supporting policy reflection and planning activities towards greater policy coherence between innovation policies and global and multi-lateral policy and stakeholder processes around sustainability, in particular the technology facilitation mechanism of the United Nations. [5]

The inno4sd service of 'roadmaps' implies the provision of the following components:

1. Best practices on innovation/sustainability policy roadmapping for SDGs
2. Elaboration of guidelines for policy makers and practitioners on how to implement policy roadmaps, in particular STI roadmaps for SDGs.
3. A capacity building programme on how to implement roadmaps, worldwide.

Components 1 and 2 above are considered within the scope of the H2020 Green.eu project. The challenge remains in establishing strategic partnerships for the use and appropriation of the knowledge generated within the project. Component 3 requires an end-user and additional funding.

Current and expected results: Inno4sd experts were invited to the Expert Group Meeting on STI for SDG roadmaps held in Tokyo, Japan (May 2018) and Brussels, Belgium (November 2018). [6,7] Two publications are under elaboration with the aim to support the on-going work of STI for SDGs roadmaps of the United Nations Inter-Agency Task Team for the SDGs (IATT), chaired by UN DESA and UNCTAD, and promoted by the Government of Japan. An agreement has been made with the IATT to use the inno3sd guideline as a companion document for the UN-

manual, and to be launched during the 4th EGM on STI for SDGs roadmaps to be organised next year in Geneva or Singapore in early 2019 (February or March - tbc).

XI.   Manuals and Guidelines

Maastricht Manual on Measuring Eco-innovation for a Green Economy

The purpose of this manual is to offer guidance on issues of eco-innovation measurement for a green economy to statistical bureaus, researchers and policy makers.

The document was written by the world leading scholars in eco-innovation and green economy, led by Professor Rene Kemp (UN-MERIT and Maastricht University) and validated by experts that wrote the OECD Oslo Manual.

inno4sd is currently in conversations with the Green Growth Knowledge Platform (GGKP) and EUROSTAT to explore the dissemination and use of the Manual. In addition, the Inter-American Development Bank and the South African Government are considering testing the manual in 2019 for the elaboration of a regional scoreboard of green innovation for the

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[5] More information available at https://sustainabledevelopment.un.org/TFM
[6] Program and materials available at https://www.jst.go.jp/sdgs/en/activities/201805 08.html

[7] https://sustainabledevelopment.un.org/conten t/documents/19009STI_Roadmap_Background_ Paper_pre_STI_Forum_Final_Draft.pdf

Latin American Region and south Africa, respectively.

Results: *The manual will be available in December 2018 as both a hardcopy and as a micro-website that can be find standalone or at the inno4sd website. The manual is currently undergoing a process of professional lay-outing.*

Guidelines STI for SDGs roadmaps

The inno4sd policy outlook number 10 on STI roadmaps provides guidance to the pressing question on how to design and implement science, technology and innovation (STI) roadmaps to foster eco-innovation for sustainable development.

A second document is the STI for SDGS guideline -providing evidence on theoretical, conceptual and practical issues for the implementation of innovation policy road mapping for SDGs.

Current and expected results: *An expert workshop was organised as part of the inno4sd symposium in Brussels, on November 8th. The results of such workshop were presented at the 3rd Expert Group Meeting (EGM) of the IATT in this subject on Nov 27th in Brussels. The publications will be used by the IATT TMP/ STI for SDGs programme and will be hosted at a special micro-web site.*

XII.   Monitoring and evaluation

The work programme of the H2020 Green.eu project involves a form of policy evaluation; the Sustainability Transition and Innovation Reviews (STIR) framework. Future services of ino4sd can be expanded to the area of policy monitoring.

STIR country reviews of Sustainability Transition and Innovation policies

The Sustainability Transition and Innovation Reviews (STIR) gathers evidence and expert views on the role of public policy in supporting innovation enabling transition towards sustainability. The reviews are conducted in countries at different points in their sustainability transition and facing diverse environmental and societal challenges. The STIR framework supports policy reflection on problem framing, policy design and capacity building relevant for policies aimed to support sustainable innovation.
The process has three main purposes:
- Policy evaluation
- Public debate and policy learning
- International collaboration

The inno4sd team has finalised three out of five country reviews (i.e. Turkey, UK, China). Two (Sweden and South Africa) are available in draft versions and are expected to be finalized by the end of October 2018. A global map of policy agendas and eco-innovation related policies will be based on Sustainable Transitions and Innovation Country Reviews (STIR).

Results: *inno4sd has developed a set of guidelines based on the pilot country reviews with the potential to support assessments of the suitability of policies to contribute to the SDGs.*

The Future of inno4sd

The Brussels high-level event (Nov 7) and the policy-science symposium (Nov 8-9) constitute the beginning of a transition

period for inno4sd to become a durable, self-sustained initiative. A strategy-plan has been created for this purpose. It is foreseen that a transition period of 24 months may be established for the consolidation of the inno4sd network.

I. Global secretariat

The creation of a global secretariat is part of the exit strategy of the inno4sd network. An operational secretariat is an element of outmost importance to guarantee adequate coordination and leadership of the work programme of inn4sd beyond the initial funding of the EU. Two options of operations have been proposed.

Option (1) involves the creation of a separate legal entity (non-for profit) in Brussels or Paris in the first semester of 2010, with full operational capacity by the end of 2019.

Option (2) involves an strategic partner hosting the secretariat for a period of 2-3 years, with the second or third year involving the creation of a separate legal entity for the operation of the secretariat. Current discussions are being held with Future Earth, the International Council for Science, GGKP, and UN SDSN.
For both options funding is being sought from selected National Governments for

sponsoring the transition phase and the delivery of specific project (flagship initiatives). The support of the following countries is being sought at the present time: Sweden, the Netherlands, Japan, and Mexico. The Government of Sweden has expressed their intention to support the future of inno4sd – with specific arrangements to be agreed. The Government of Mexico has committed to provide sponsorship for the 2019 event in Mexico.

Initially, the secretariat would run with 4 FTE: *1 managing director, 1 programme manager (engagement and network growth), 1 communications specialist and 1 person to run the day-to-day operations (back office support)*. An initial estimation of operational costs in the order of 300k EUR / year has been estimated to cover salaries and basic overheads.

Expected results: By the end of 2019 a team of 3-4 people should be operating with a network base of at least 100, at least 1 flagship initiative and a number of basis services. By the year 2022 the proposal is to have a secretariat of 9-12 people operating the membership base of +300, six flagship initiatives and services.
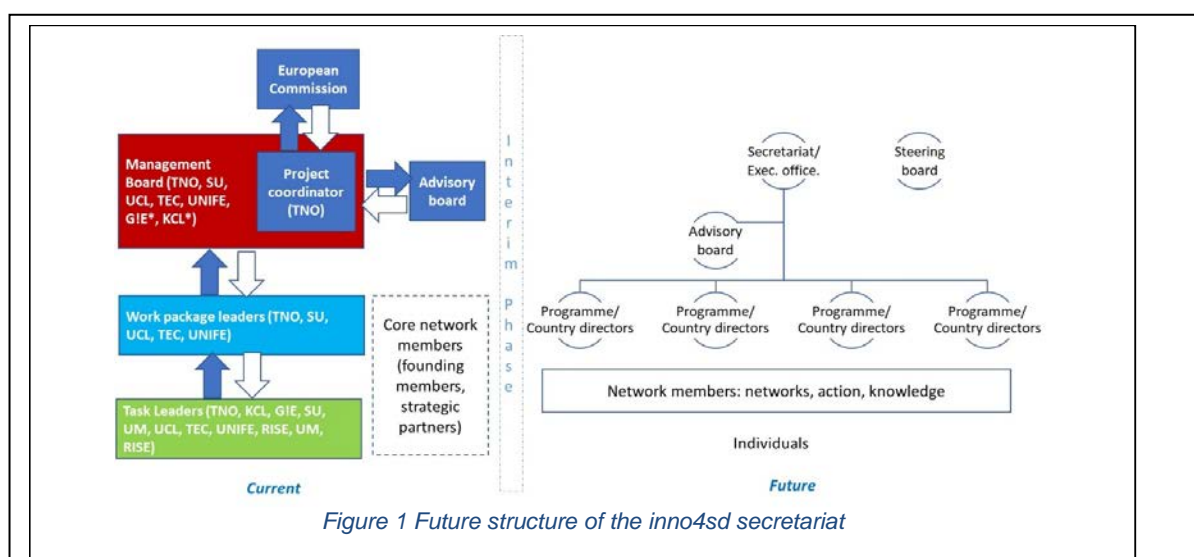

Figure 1 Future structure of the inno4sd secretariat

II.   The future role of the European Commission

A major effort is being made to guarantee the sustainability of inno4sds. To date, the financial support of the European Commission DG RTD has not been guaranteed. It is unlikely that a new grant of 3 million EUR will be available for ensuring the continuity of this initiative as a EU-funded. However, the European Commission has expressed its firm interest for inno4sd to continue, and conversations have been set up with DG DEVCO, JRC, the European Institute for Technology, among others, to discuss mechanisms for engagement and support to inno4sd.

The European Commission is also considering setting up a new expert group to discuss the role of research and innovation in support of SDGs, and as part of that process inno4sd would be somehow engaged/ supported. More about the position of the EU will be known in January.

III.   New website

A new website of the inno4sd network has been designed thinking of a durable and sustainable initiative beyond the duration of the H2020 green.eu project.

The new inno4sd website was launched at the European Parliament on November 7th 2018 as a pilot version – with full operational features to be delivered in January 2019.

The website has been designed as an open-access repository featuring information, online resources and tools for understanding / implementing innovation in support of SDGs.

IV.   Global initiative

The workplan of the H2020 project established the launch of a new global initiative around eco-innovation. Instead, the inno4sd will invite parties to join a declaration and an international alliance for the creation, use and update of an action-oriented knowledge and innovation agenda in support of the SDGs, including climate action and green economy.

The inno4sd-led Global Initiative was launched on November 7th 2018 at the inno4sd High-level event at the European

Parliament. This event was the start of a dialogue between inno4sd, strategic partners and potential donors to move to actions and initiatives that mobilise knowledge and innovation in support of sustainable development, including a focus on circular economy and climate action.

Inno4sd high-level event "Policies and Partnerships for the Sustainable Development Transition"

The global initiative is a non-binding declaration of intention on the importance that scientific and traditional knowledge has for the above-mentioned topics. The new inno4sd website contains a platform for new supporters for the initiative.

The web-based platform allows signatories to propose new topics, and to submit relevant materials for the knowledge repository (tools, videos, cases, etc).

Expected result: Potential signatories of the initiative include the +300 networks and entities identified and contacted by the H2020 Green.eu project. An estimated of 50,000 users have been estimated as a potential outreach.

V. Flagship projects

The future initiatives of inno4sd have been conceived as action-oriented projects aiming at mobilising actors and resources towards the end to tackle with innovation some pressing issues around global sustainability. The following topics have been considered

1. Multi-stakeholder policy-science dialogues (engagement with parliaments and decision makers at different levels of government)
2. Global initiate learning and innovation for sustainability, climate action and circular economy – declaration
3. Knowledge repository innovation for SDGs
4. Global programme STI for SDG roadmaps and solutions-pilots
5. Global monitoring of green and social innovation for a transition to inclusive green economies
6. Inno4sd academy's global mobility and training programme
7. Policy learning / experimentation / STIR reviews
8. Systemic experimentation in cities – climate and SDGs
9. Global network of testing, training and end of life centres – renewable energy / living labs/ circular economy / big data
10. Systemic innovation / transformations – bottom up/ finance

For the immediate work programme of inno4sd initiatives 1 to 5 would be prioritised. Initiatives 1, 2 and 3 would be operated by the inno4sd secretariat (using existing resources and infrastructure); initiatives 4 and 5 require additional funding.

Advancing the state-of-the-art in innovation for global sustainability

The Innovation for Sustainable Development Network (inno4sd.net®) brings together networks dedicated to innovation for sustainable development with the aim of reducing fragmentation and supporting collaboration, whilst engaging policy-makers, research & development, and businesses to achieve the sustainable develop-ment goals.

The H2020 Green.eu project and inno4sd® network was coordinated by the Netherlands Organisation for applied Scientific research TNO in the period March 2015- January 2019. As of February 2019 the inno4sd Steering Board oversees the activities and management of the network.

Innovation for Sustainable Development Network - inno4sd

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