



European Construction Sector Observatory

Policy fact sheet

Netherlands

Holland Circular Hotspot

Thematic objectives 3, 4 & 5

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In a nutshell

Implementing body	Holland Circular Hotspot (HCH) in collaboration with Ministry of Infrastructure and Water Management, Netherlands Enterprise Agency.
Key features & objectives	Public-private collaboration platform that brings together companies, knowledge institutes and (local) authorities active in the Dutch circular economy to promote and support knowledge exchange and international collaboration.
Implementation date	2016 – ongoing
Targeted beneficiaries	The entire circular economy value chain in the Netherlands and abroad.
Targeted sub-sectors	All (sub)sectors.
Budget (EUR)	Not published.
Good practice	★★★★☆
Transferability	★★★★★

2. Use sustainably produced, renewable and widely available raw materials;
3. Develop new production methods and design new products for circularity.

The Dutch national strategy “A circular economy in the Netherlands by 2050” is one of the most important circular economy initiatives. Launched in 2016 by the Ministry of Infrastructure and the Environment and the Ministry of Economic Affairs in 2016, it includes a number of actions. In January 2017, 189 parties signed the Raw Materials Agreement. In 2018, transition agendas were produced for five sectors: biomass and food, plastics, manufacturing industry, construction and consumer goods. In 2019, the Circular Economy Implementation Programme was launched to translate those agendas into specific action with two key milestones:

- 50% less consumption of raw materials by 2030;
- An economy without waste by 2050.

The Dutch transition agenda for the construction sector⁵ (2018-2021) sets out the principles and objectives required to achieve an entirely circular built environment by 2050⁶. Circular construction is the development, use and reuse of buildings, areas and infrastructure without unnecessarily exhausting natural resources, polluting the living environment, and affecting ecosystems⁷.

The Holland Circular Hotspot (HCH) initiative was created by the Dutch government in 2016 to help implement the construction transition agenda. The HCH is a private-public platform that brings together companies, knowledge institutes and (local) authorities to promote and support Dutch circular economy knowledge exchange, as well as international collaboration. The HCH supports the circular economy and circular construction by creating hubs and hotspots to facilitate collaboration and to accelerate time to market for new economic initiatives.

Global consumption of materials such as biomass, fossil fuels, metals and minerals, is expected to double in the next forty years. Annual waste generation is also projected to increase by 70% by 2050¹. In light of these challenges, the European Commission adopted a Circular Economy Action Plan in 2015² (updated on 11 March 2020) to support the development of the circular economy (CE)³.

In response to the EC’s first Circular Economy Action Plan, the Dutch government set a clear goal: the Netherlands will be fully circular by 2050. To achieve this goal, the Netherlands aims to⁴:

1. Make more efficient use of raw materials within existing production processes;

1.

General description

The Holland Circular Hotspot (HCH) is a private-public platform that provides a collaboration space and framework for circular economy value chain stakeholders. Participants include the HCH foundation, (local) government authorities, knowledge institutes and companies. Its purpose is to stimulate and support knowledge sharing, international collaboration and circular economy (CE) entrepreneurship⁸.

The HCH is a “Circular Netherlands 2050” action. The agreement to found the HCH was signed in 2017 by the Amsterdam Economic Board, BRBS Recycling, Circle Economy, Compazz, Envaqua/FME, Knowledge Institute Duurzaam Verpakken, the Ministry of Foreign Affairs, the Ministry of Infrastructure and Water Management, NederlandCirculair, Netherlands Circular Hotspot, RVO, TNO, Delft University, Utrecht Sustainability Institute and Wageningen University⁹.

The mission of the HCH is to support the achievement of Sustainable Development Goals (SDGs) by helping to implement circular economy initiatives internationally¹⁰.

To achieve that end goal, the HCH has two principal objectives:

- To support the international exchange of CE knowledge, innovation and best practices;
- To help create CE business opportunities for Dutch and foreign companies¹¹.

To fulfil these objectives, HCH activities aim to address the needs of affiliated companies and knowledge institutions by¹²:

1. Establishing cooperation between companies, knowledge institutions and governments. The HCH supports the transformation of work and production methodologies by connecting the global circular community. The HCH offers physical and digital meeting places for

organisations to stimulate joint and cross-sector collaboration at national and international level;

- 2. Increasing international awareness of the CE.** International collaboration is essential to achieving a completely circular economy. The HCH provides an English-language website with information, documentation and materials for international audiences;
- 3. Providing a CE platform for foreign parties interested in Dutch knowledge and expertise.** The HCH connects interested foreign parties with Dutch companies and knowledge institutions that can provide the required knowledge and expertise. Experiences and best practices are shared, as well as information on relevant programmes, sectors and transition agendas;
- 4. Signposting available supports.** To stimulate circular entrepreneurship, the HCH directs initiators to suitable financial support schemes and programmes.

To achieve the SDGs and an economy without waste by 2050, HCH **activities** are directed towards achieving the following goals¹³:

- Provide insights on the CE and access to the network of Dutch circular pioneers;
- Support knowledge exchange on international market opportunities for the CE;
- Match the supply of and demand for international circular opportunities;
- Help businesses to contribute to the internationalisation of the CE;
- Stimulate cooperation between the private sector, knowledge institutions, governments and other relevant parties;
- Enhance the international visibility of Dutch CE innovations and best practices;
- Facilitate access to Dutch and international (financing) instruments and programmes.

2.

Achieved or expected results

The Holland Circular Hotspot (HCH) has implemented a wide range of support activities commensurate with its role as a circular economy hub.

On its knowledge sharing platform (<https://hollandcircularhotspot.nl>), the HCH publishes a broad array of informative materials that include news items, articles, insights, publications, showcases, blogs and event notices on CE themes and developments.

The purpose of the HCH's online content is to: promote Dutch-led CE initiatives; inspire businesses and entrepreneurs in the Netherlands and around the world to develop their own initiatives; and encourage them to connect with the Dutch CE community and forge partnerships.

Circular economy knowledge, insights and developments can be searched on the HCH website by themes and keywords. **Common themes** include biomass and food, circular cities, circular hotspots (international), **construction**, consumer goods and manufacturing, among others.

The **construction sector news** section provides information on activities such as **trade missions** to other countries to build collaborative partnerships (e.g. to California in November 2019), **new agreements** (e.g. to convert the C-Bèta warehouse in Hoofddorp into a workspace for circular companies), and **ongoing collaborations** (e.g. with Benelux nations on circular construction recovery plans).

The showcase section contains more than 100 cases of Dutch circular practices, approximately 20 of which are directly focused on circular construction projects and practices supported by the HCH. Many others are indirectly linked to the construction sector.

Figure 1 provides a summary of some of the showcase practices published on the HCH website.

Figure 1: Examples of HCH showcase projects and practices

Venlo City Hall

- The city of Venlo opened their new city hall in 2016. It was designed according to cradle-to-cradle principles. By using thermal-energy-storage, solar panels, solar boilers and other energy efficient measures, the structure is energy self-sufficient.

Leadax – Circular building materials out of PVB-waste

- Leadax uses high-tech material and production knowledge to develop and manufacture 100% circular materials out of waste to waterproof buildings, such as flat roofing, flashing or waterproofing basements.

Denimtex – Jeans on the wall

- Denimtex processes fibres into a paste that can be applied to walls and ceilings. This ceiling and wall covering is a sustainable alternative to wallpaper and paint that is both recyclable and reusable.

Mobile Factory – Building with purpose

- The Mobile Factory has developed a concept in which concrete rubble is converted into a series of related building elements, comparable to Lego blocks. A house can then be assembled with them.

DRIVE – Biocomposite bicycle bridge

- An asymmetrical bridge that can be opened with a biocomposite roadway. The biocomposite (80% natural) is based on flax and resin, a promising building material for bridges.

Source: Holland Circular Hotspot¹⁴

Initiatives underway in the city of Amsterdam provide some other interesting examples of circular construction developments supported by the HCH.

To support the development of a circular built environment, the local government in Amsterdam is incorporating circular economy principles into its public procurement procedures.

Since 2017, the local government has been working with many local partners to redevelop the former industrial area of Buiksloterham into a **circular residential and commercial neighbourhood**. The plan is to develop the area as a **living lab**, in which businesses, the city and citizens can continually experiment with new techniques, technologies and business models. The initiative aims to support healthy living, resources, and biodiversity. Its efficiency targets include 25% - 75% of recycled materials in developments and a 20% reduction in total material consumption.

Park 20|20 is a circular materials project that has been designed from the ground-up to provide Cradle-to-Cradle (C2C) optimisation and maximise the ecological benefits and human well-being.

All buildings have been designed to be disassembled at the end of their life so that materials can be either biodegraded or reused in other products or buildings.

Park 20|20 is expected to create buildings with a higher residual value. Key project features include:

- The **largest collection of C2C certified products worldwide**;
- 18% reduction in initial construction costs;
- 2,500 m² of solar panels to provide 100% renewable energy;
- On-site agricultural production of over 20 species of fruit and vegetables.

Events

The HCH has organised and participated in a number of circular economy events to promote its activities and Dutch CE initiatives. Construction-related events include:

- WasteBuild 2020¹⁵;
- Circularity in Construction: Opportunities in the Netherlands and Latvia¹⁶;
- WasteBuild 365 – Time for Action¹⁷;

- World Circular Economy Forum – over 60 participants at a session focused on circular cities in developed and developing countries¹⁸.

Self-service toolkit¹⁹

The HCH website features a dedicated support section which provides a range of **tools to support circular entrepreneurship**²⁰. The content includes CE publications, guidelines, experiences, and circular business models, among other tools. The purpose of the toolkit is to provide entrepreneurs and businesses with practical information to guide their transition to a circular economy.

The Holland Circular Hotspot has been very active in its work to inspire and support similar initiatives in other countries.

The HCH organises **trade missions** to countries around the world, with a view to establishing circular economy development partnerships. The HCH is currently working with **partners in Africa, the Americas, Asia and Europe**²¹.

European partnership examples

The **Nordic Circular Hotspot** was set up in June 2019 by two founders from Norway and Sweden that met each other during the Holland Circular Economy Week. Both were impressed with the organisation and activities of the Holland Circular Hotspot and they decided to create a similar initiative in the Nordic region²².

The HCH signed a collaboration agreement with the **Circular Economy Platform in Hungary** in November 2019 and is supporting this initiative through the exchange of experiences and know²³.

Conclusion

Overall, the HCH is a very active circular economy support initiative that is fulfilling its remit – to promote Dutch circular economy developments and practices, and support international collaboration. Although it is fairly evident that the HCH is a successful initiative, an evaluation of its results and impact does not appear to have been conducted thus far.

3.

Perspectives and lessons learned

Long-term circular economy investment decisions require strong cooperation between stakeholders, sectors and countries. CE hotspots have an important support role to play, as they bring value chain stakeholders together to collaborate and work towards shared goals.

According to the Director of the Holland Circular Hotspot, collaboration between circular hubs and hotspots can deliver important benefits. It helps to accelerate time to market for new economic initiatives, it encourages innovation and it helps to develop solutions to societal challenges²⁴.

The President of the Supervisory Board of the Holland Circular Hotspot and former Minister of Housing, Spatial Planning and Environment takes a similar view. The best way forward is to join forces and help each other to make the transition to a circular economy. The Holland Circular Hotspot aims to overcome to this challenge. The HCH facilitates the exchange of knowledge and experiences with other countries and actively supports the move to a circular economy²⁵.

In addition to supporting cooperation at a national level, the HCH is strongly focused on international engagement and partnerships. Partnerships with circular economy initiatives on four continents are evidence of the HCH's expanding global network. According to the President of the Business Council for Sustainable Development in Hungary, partnering with the HCH is important to the Circular Economy Platform in Hungary because it provides access to leading international know-how, which will help the Hungarian initiative to grow²⁶.

Circular construction requires a new way of thinking about buildings and value. New metrics are therefore needed to inform decision-making and assess progress²⁷.

According to the Lead Author of the Circularity Gap Reports at Circle Economy, a national and international measurement framework is needed to monitor and assess progress towards a circular economy. Circle Economy's Circularity Metric could serve as a national or global yard-stick with which to measure progress²⁸. Data on material flows in the construction sector is broad. Metrics are therefore needed to cover the entire value chain.

The transition to a circular economy is a long process. An effective monitoring system is needed to assess the process and its impacts, to understand key success and failure factors, and to take remedial action where necessary²⁹.

Assessing the actual and expected results and impact of the Holland Circular Hotspot and its activities is complicated by the lack of an evaluation framework with clear indicators.

The HCH website features a wealth of information that summarises the ongoing development activities of the HCH hub and the organisations involved. However, there do not appear to be any clear indicators against which to measure the performance of the hub and its activities. It is therefore difficult to conduct a detailed assessment of its development and, most importantly, the impact it is having³⁰.

4.

Conclusion and recommendations

The Holland Circular Hotspot is an integral part of the Circular Netherlands 2050 strategy. The HCH hub is playing an important support role, promoting circular economy principles, developments and opportunities, connecting value chain stakeholders, and supporting knowledge sharing and collaboration.

Since its launch in 2016, the HCH hub has made important contributions to the Dutch and global circular economy. It has produced and published a broad range of informative support materials on the CE, from rolling news items to articles, publications, guidelines, business models, best practices, event notices, interviews and blogs.

The HCH hub has also provided more than 100 showcases of Dutch circular practices to inform a global audience and encourage action and collaboration. At least 20 of the showcased practices are directly related to the construction sector.

Circular economy insight is combined with stakeholder engagement activities, including at events, and project-focused collaboration at a national and international level. The hub has succeeded in forming strategic partnerships with similar initiatives in countries around the world, amassing a global network that will continue to grow.

Looking forward, two recommendations are suggested to help improve the impact of the Holland Circular Hotspot:

- Consider developing an evaluation framework and appropriate indicators to assess the performance of the Holland Circular Hotspot, in terms of its activities, their results and impact. This framework could and should be connected

to similar frameworks used by similar initiatives, with a view to developing an international evaluation framework;

- Explore opportunities with international initiatives and organisations to develop and trial a best practice circular economy monitoring and evaluation framework based on common indicators. An overarching framework linked to sector-specific frameworks may help to coordinate, benchmark and further inspire global circular initiatives.

Overall, Holland Circular Hotspot is rated a “4-star good practice measure” on a scale of 1 (low) to 5 (high).

Holland Circular Hotspot is actively contributing to the development of the circular economy and to circular construction. The hub’s growing circular knowledge library, including over 100 good practice showcases, its stakeholder support activities, and its expanding network of domestic and international partners and projects, are a good indication of the potential value of the HCH hub. To achieve a higher good practice score, however, an evaluation framework with a clear set of indicators is needed to assess the hub’s activities, results and impact.

Holland Circular Hotspot is rated a “5-star transferable measure” on a scale of 1 (low) to 5 (high).

The HCH hub is highly transferable, as demonstrated by the hub’s growing network of international partners, most of which are similar initiatives and some of which the HCH has directly inspired (e.g. the Nordic Circular Hotspot and the Hungarian Circular Economy Platform).

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