



'Internodal Arteries' a new strategic project for residential development in rural Dutch landscapes

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Ladies and gentlemen,

My name is Nico Beun.

After studying agricultural economics at Wageningen University, I held various posts in the Netherlands in such diverse areas as:

- land use development / land exchange and consolidation
- innovation of agricultural education and
- countryside renewal

More recently, I have been working for InnovationNetwork, but I will return to that later. First I would like to thank Professor Jorgen Primdahl for inviting me to give a presentation here today about one of the projects I am working on at the moment. I am looking forward to discussing the subject of my presentation with you and, above all, I am very keen to hear how you deal with similar challenges here in Denmark.

My presentation consists of the following three parts:

- Introduction
 - InnovationNetwork
 - Dutch Planning History
 - The Art of 'Rural Building'
- Internodal Arteries
 - Introduction – two important transformations
 - Basic principles of the concept
 - The making of the first pilot
- Conclusion
 - Transformations in thinking

1. Introduction

1.1 InnovationNetwork

InnovationNetwork develops radical new concepts in agriculture, agribusiness, nutrition and green space and ensures that these are put into practice by interested parties. This involves innovations aimed at sustainable development with a longer-term focus. The project I will present to you this afternoon is one of more than 60 concepts that we are working on.



The Ministry of Economic Affairs, Agriculture and Innovation initiated and finances InnovationNetwork. A Board oversees and directs our activities. We have 12 staff members. Some work part-time because they also have other posts.

There are also numerous network partners such as municipalities, provincial authorities and businesses.

The basic principle of our organization is that Hard-to-Solve issues in our society call for new ways of thinking and acting: for new paradigms. A more or less independent party like InnovationNetwork, acting between the various players, is vital to facilitate breakthrough solutions.

1.2 Dutch Planning History - the period after the second world war

As an introduction, let me take you on a short trip through our history. Because this will help you to understand the rural situation in the Netherlands and why we are working on the Internodal Arteries Project.

After the second world war, it was broadly agreed in the Netherlands that nobody in the country should ever go hungry again. The famine towards the end of the war had starkly underlined the dangers of failing to secure a reliable domestic food supply. Accordingly, enormous investments went into developing a strong agricultural sector. This gave our economy and export sector a significant impulse, but it also had a strong impact on the spatial quality of the rural area in the Netherlands, including the development of our landscape and nature.

Our main planning priority after the second world war was to clear the way for large-scale agricultural development and to make and keep as much land as possible available for agriculture.

But there was another priority too: namely to build houses for people...lots of houses for lots of people. So we adopted compact planning strategies. This meant that residential building was mainly confined within the boundaries of existing towns and villages and in a limited number of new-build areas that were designated at centralized level.

Immense numbers of houses were built. Which was a great achievement. But there were also disadvantages

- We did not cater to the diversity of housing requirements
- Virtually no new housing was built in the rural area and the rural housing that was built is no longer attractive
- Builders, architects, urban developers and planners have forgotten the art of rural building



- Rural building has been stigmatized as ugly and a blight on the countryside

1.3 The Art of 'Rural Building'

The prevailing notion was that in a densely-populated country like the Netherlands housebuilding should be heavily concentrated in a limited number of places. This approach broke with our age-old tradition that had produced an attractive landscape in the preceding centuries, where buildings could play a significant role in harmony with the countryside. A number of these are now cherished as valuable monuments of our landscape history and heritage.

We have lost something that could prove very useful to us in the future: the art of blending buildings into the countryside. By breathing new life into this art, we can do ourselves and new generations a great service.

There is a great demand among citizens for new opportunities to live in the countryside but the restrictions of the existing policy prevent this. Strict regulations make it almost impossible to build new houses in rural areas. Overcoming this barrier is an enormous challenge. And we need to devise new concepts and develop new policies in order to rise to this challenge.

New concepts for rural building can be combined with our search for opportunities to give citizens more responsibility for managing and maintaining the landscape and nature. Precisely now, at a time when subsidies are being abolished in our country and much less public funding is available for nature, ideas for new ways of managing and financing our rural area are very welcome.

The art of rural building calls for entirely new designs. Existing examples of rural building, both in the Netherlands and elsewhere, are few and far between. Our entire system from training architects and technicians to developing construction materials and building technologies is mainly aimed at urban building and designing. Step by step, the art of rural building has ebbed away and now only leads a modest and marginal existence in a limited number of places. So the time is ripe for an attempt to put the art of rural building back in the spotlight. Appealing examples will be indispensable in this connection.

The example that I propose to highlight today also seeks to contribute to new sustainable ways of achieving and maintaining spatial quality. The sustainability of the concept rests on the fact that the citizens are directly responsible for the countryside that they live in.

2. Internodal Arteries



- Introduction – two important transformations
- Basic principles of the concept
- The making of the first pilot

2.1 Introduction

2.1.1 Transformation of farms

There are 26,000 farms in the province of Overijssel, of which 10,000 are still used for agriculture. In the future the number of agricultural farms will decrease to 3,000. This means that alongside the 3,000 working farms, 23,000 farms will pass into the hands of non-farmers.

In the period that now lies behind us, the transformation of farms from an agricultural to a residential use was perfectly straightforward. A retiring farmer sold his farm to a civilian and his land to another farmer. In this way, many small farms changed hands. But the farms that came up for sale started to get bigger and bigger. Too big to house one, or at most two, families. However, accommodating more than two families in these farms conflicts with the spatial planning policy of the Netherlands. That would be seen as an undesirable form of urbanization.

2.1.2 Transformation of farmers from managers of small-scale landscape into new landscape managers

Two important trends are taking place in rural areas: farmers are stopping and citizens are migrating to the country. This offers opportunities both for landscape development and for the further reinforcement of the agricultural structure – a surprising combination that rarely goes hand in hand and is often considered impossible.

2.2 Basic principles of the concept

Internodal arteries consist of paths and planted greenery linking farms together. With their tentacles of routes and greenery, these internodal arteries organize the landscape and thus serve as an ordering principle in rural Twente. The challenge in this concept is to facilitate the development of business enterprise in a small-scale landscape, whilst simultaneously offering citizens opportunities to live in larger internodal arteries and take responsibility for the management and maintenance of the characteristic planting that gives shape to these internodal arteries.

The parties working on the Internodal Arteries are seeking to achieve the following objectives:

1. Strengthen the quality *and* sustainable maintenance of the **landscape**
2. Develop future-proof **agriculture** in a small-scale landscape
3. Broaden the range of rural **housing, working, recreation** and **care** options



4. Improve the **accessibility** of the rural area
5. Preserve and develop our **agricultural heritage**

The countryside is changing. Many farmers are stopping. They are selling their land to colleagues who want to expand. And citizens are buying the vacant farmsteads. Larger-scale farming and the arrival of citizens are re-shaping the characteristic look of the centuries-old landscape. The '**Internodal Arteries**' concept is a contemporary solution for this new challenge. It offers new opportunities to farmers, citizens and the countryside. [For Sale; Every day 7 farmers stop in the Netherlands]

Mid-sized agricultural farms have lots of arable land plus a farmstead with stables and sheds. While the land is economically attractive for expanding farmers, the farmstead itself is too large for an individual family from the city. But its size is ideal for combining home and work. [Internodal Arteries are developed from vacant mid-sized farmsteads]

Internodal Arteries aim to preserve and develop the historical farmstead character. Beautiful buildings are kept intact, while all necessary alterations are carefully designed to blend in with the old structures. Less attractive buildings, such as stables, can be pulled down. The Internodal Arteries can accommodate several homes, which combine characteristic heritage buildings and new-build additions. This creates space for new functions including living, work, care and recreation. [Internodal Arteries build on the historical farmstead character...]

The new residents not only look after their own home, but also the farmyard and immediately surrounding countryside. The Internodal Arteries are all connected via historical or new routes and planting with their surroundings. The residents not only own their home, but also parts of the landscape in their proximity. They are responsible for its development and maintenance. They can either take this into their own hands or outsource it to e.g. an agricultural association, a farmer or gardener. In this way, residents of Internodal Arteries share responsibility for their splendid views and the walking, cycling and horse-riding routes that connect their homes to the countryside. [...and look after the surrounding countryside]

Neighbouring farmers can expand their business with land that becomes available. They can also swap their unprofitable routes, landscape elements and planted areas – which are needed to develop the Internodal Arteries – for production land that is released from the sold mid-sized farms. In this way, farmers can expand while preserving the historical character of the landscape, where many have roots going back generations [The neighbouring farmers benefit too]



The shape and appearance of Internodal Arteries depends on the landscape in which they are developed. The first has been started in Overijssel. The landscape here is characterized by old farmsteads and small-scale farmland surrounding lower-lying villages. The farmsteads are situated along the flanks of the higher-lying (convex-shaped) fields. These landscapes are a motley mix of open fields, pasture land, wooded banks, woodland, streams and farmsteads.

[Internodal Arteries: starting in Overijssel]

For many centuries, the farmsteads were the pivotal point from which the landscape was developed and cultivated. This resulted in strong links between the farmstead and the surrounding landscape. Informal sandy paths ran from the farmstead to the fields and then on to the next farmstead.

[Farmsteads in Overijssel were originally linked together by planting and routes]

Modernization and larger-scale agriculture have had a strong impact on this small-scale landscape. In the course of the last century the wooded banks, woodland and finely-meshed routes lost their agricultural purpose. They were removed to make way for larger-scale landscape development. The new landscape still contains fragments of the old wooded banks and sandy paths which are extremely valuable in providing historical identity, aesthetic pleasure and practical benefits.

[...but many small-scale elements made way for large-scale development]

More opportunities for living and working on the farmsteads in exchange for investments in agriculture, landscape and attractive routes. That is the essence of the "Internodal Arteries" concept. Stronger agriculture creates a sustainable basis for the continuation of viable farming in a small-scale landscape. At the same time, the new residents of the Internodal Arteries can enjoy the benefits of country living and beautiful views across green fields and grazing cows. The new connecting routes are attractive for cycling and walking. Internodal Arteries thus reconcile and unite the interests of farmers, citizens and the landscape.

The starting point is that several households are given the freedom and scope by policymakers to live and work on a farmstead that has lost its agricultural function.

The new inhabitants will be granted this freedom on condition that they do something in return for society by:

- Constructing publicly accessible paths and planting new greenery where the small-scale landscape requires this



- Taking responsibility for the management and maintenance of landscape elements in the small-scale landscape which, as a result, is no longer managed and owned by farmers
- Contributing to maintaining our landscape history and heritage

2.3 The making of the first pilot

The initial idea came from two students of the Academy of Architecture who are our hosts today. In 2003 Karen de Groot and Ruut van Paridon graduated cum laude.

In 2004 InnovationNetwork adopted the idea as a promising strategy for renewing the countryside. The idea was to create a network of farms that are linked together with paths, where civilians can live and, possibly, work, right in the heart of the countryside.

In order to try out the idea in a practical pilot, InnovationNetwork, the province of Overijssel and the municipality of Tubbergen decided to work together. Calculations were made to test the financial feasibility of the idea. To this end, three farmers 'lent' their farms and land to the project initiators. The conclusion was that Internodal Arteries was financially feasible. On the one hand, there are the costs. These relate to purchasing the farm, preparing the land for construction, building the accommodation and laying out the grounds, and so on. On the other hand, there are the revenues from the sale of agricultural land, homes or plots of building land. The bigger the original farm and grounds, the more homes that can be built.

After this feasibility study, the municipality of Tubbergen, the province of Overijssel and InnovationNetwork decided to put the Internodal Arteries concept into practice, in cooperation with Van Paridon x De Groot Landschapsarchitecten.

On 13 February 2007 Pieter van der Vinne (councillor of Tubbergen), Piet Jansen (member of the Provincial Executive of Overijssel) and Ger Vos (Director of InnovationNetwork) presented the concept to relevant authorities and civil society organizations. The meeting was also attended by residents of Tubbergen, representatives of the LTO Agriculture and Horticulture Organization, the Ministry of Agriculture, Nature and Food, the Overijssel Landscape Foundation and Oversticht.

Soon afterwards we started looking for two or three suitable farms in order to try out the concept. Our search initially appeared to produce a quick result, but the selected candidates withdrew for personal reasons.

So we continued looking and then finally the big day arrived on 4 June 2009. The municipality of Tubbergen purchased the De Veldboer farm in the small Village of Langeveen. The consultants of Adviesbureau Gideon were asked to develop the farm and grounds. At the same time, the pro-



ject initiators continued to look for other eligible farms for the Internodal Arteries concept.

The Internodal Arteries Farm has been up for sale since autumn 2011.

This is what it looks like in practice: 9 plots of land are for sale, with partly private gardens and partly collectively owned land – a number of newly constructed paths and landscape elements.

3. Conclusions – vital transformations in thinking

- Citizens will once again take responsibility for nature and landscape as owners and managers
- Large-scale farming in a small-scale landscape is also possible if the landscape design is adapted to fit this in
- Farmers give up part of their responsibilities for nature and the landscape by giving the new local inhabitants planted land in exchange for agricultural land
- Building in the countryside is a good thing – we are going to re-develop the art of rural building
- Financing of landscape and nature is not left to government organizations and subsidy schemes, but will once again become a direct responsibility of the citizens themselves

Thank you for your attention

Utrecht, Friday 10 February 2012.

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