



I come here to present the Dutch approach on service design and architecture. It is built on our own traditions. We have always come together to face challenges, step over our differences and build coalitions.

We are also interested in your experiences in building cross-border services in your own organization, in your own domain and your own country. So please share your solutions and best practices so we can learn from them. And share your challenges so we can face them together.

ISA, Europe and we all, deserve a strong community that provides us with the necessary input, critical feedback and support.

By the end of this presentation, I hope you will all become part of that community. Contact ISA, tell them you want to join and start sharing with all of us.

Let us start with an example.



Flood is a real risk in the Netherlands. Therefore, water management is organised for over 800 years in Holland. Every day, thousands and thousands of people work together to protect all inhabitants against flooding of their land.

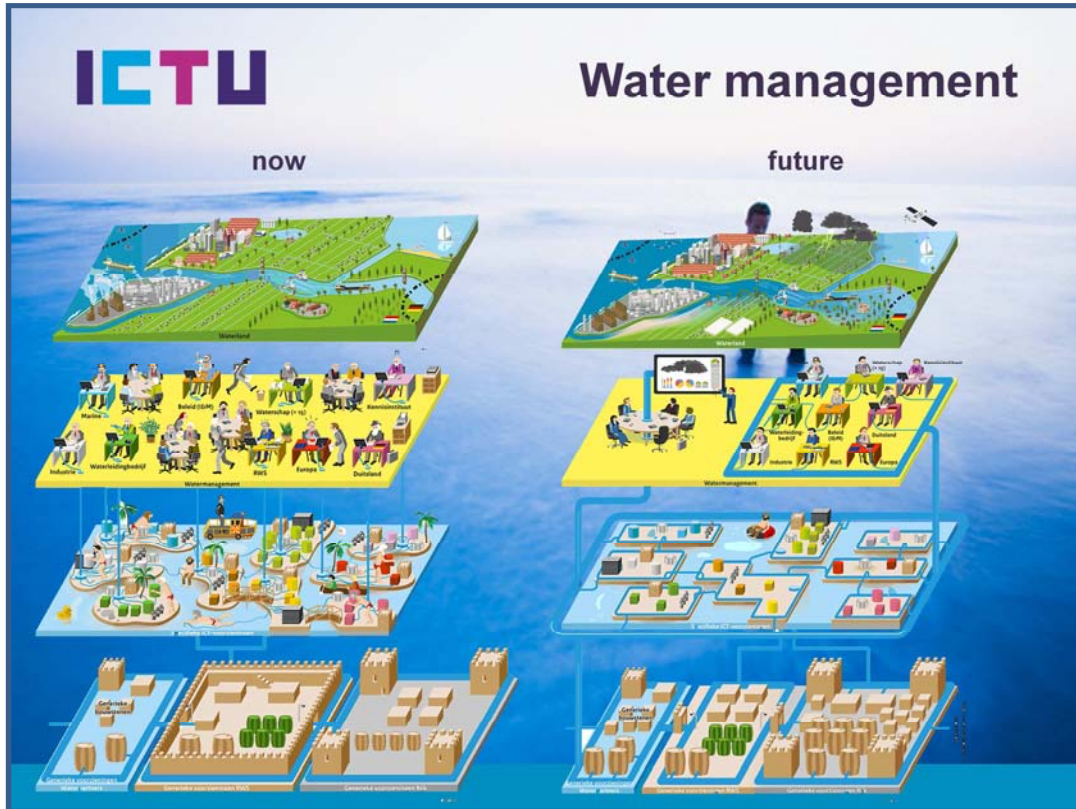
It is a public service, which is more and more supported by computer systems and based on an architectural design.

Seen from that architectural perspective, it looks something like this.

#### History

The Dutch water authority model has its origins in the 13th century, meaning that regional water authorities have been in existence for about 800 years. This makes them the oldest form of democratic government in the Netherlands. Each of the 23 regional water authorities is run by a board that is elected by the inhabitants every 4 years.

The early existence of regional water authorities has everything to do with geographical location. More than half of the Netherlands is below sea level and without a proper water management structure, the country would be uninhabitable. The many dykes, locks, pumping stations, weirs, canals and ditches keep the Dutch people safe from floods.



This represents a shared view on the relevant societal domain.  
In this case Water management.

We use visualisations in workshops with stakeholders to determine which issues are at stake and what possible solutions we see.

Through this format, we can point out the exact impact: starting with the societal goal or societal risk; the division of tasks; the processes; the systems; the data exchanges or the technical networks.

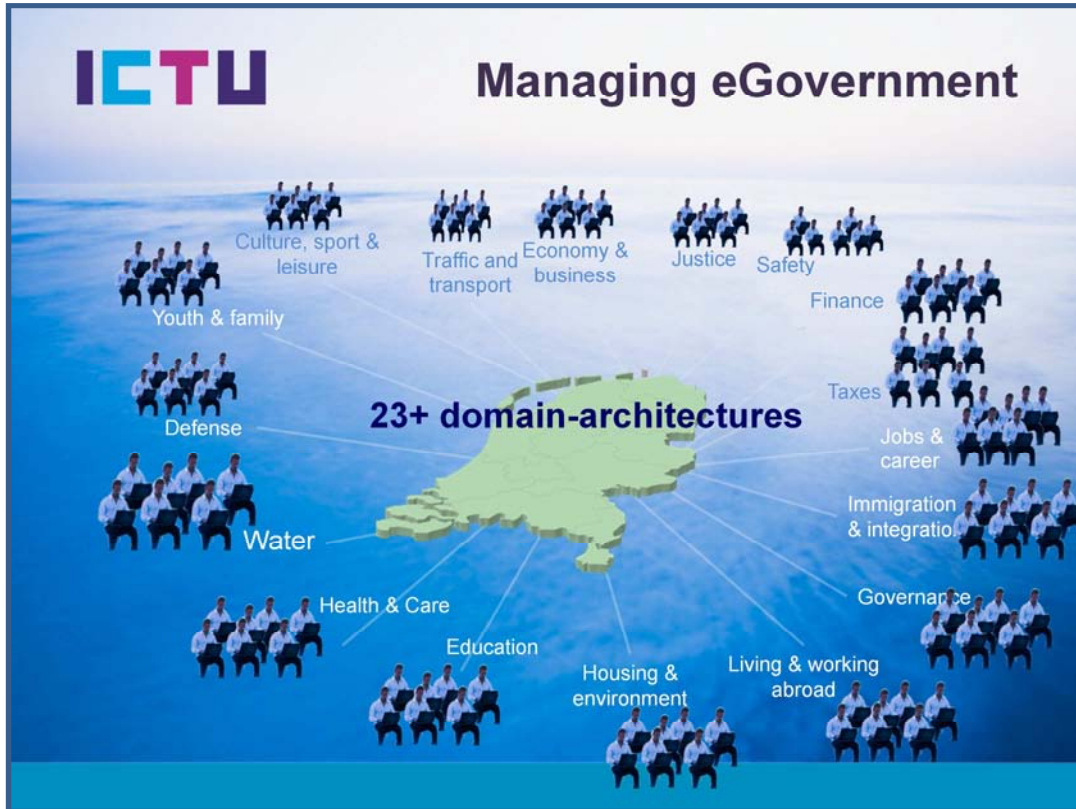
Most important is the communication-process all the stakeholders are going through, with bottom-up needs and actions and top-down thinking.

In this way, all the workers in this domain can make use of the shared knowledge.



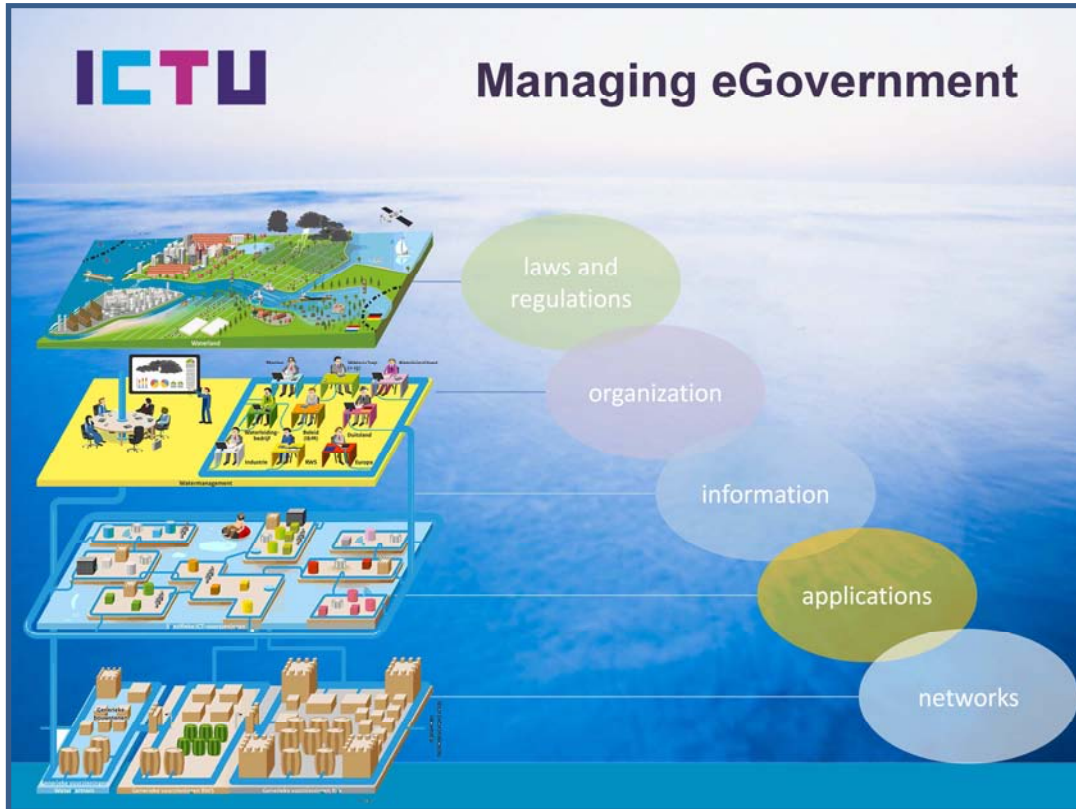
But there is also a bigger picture to look at: eGovernment.

Water management is only one part of that bigger picture.



There are many organically grown domains where government delivers services to citizens and businesses.

Each of these domains has its own experts and also its own (reference) architecture that is managed by a community of architects associated with the domain of these services.



To connect all these different domains with each other through standards and generic building blocks, we make a number of views using our architectural expertise:

- a view on legislation
- a view on the services provided by organizations (including the tasks and processes)
- a view on information needs and information supply
- a view from the necessary systems
- a view from the necessary networks and data exchanges

This approach has major alignments with the 4 views that are used in the EIRA. We only have split the Technical view into the 2 views: Applications and Networks. One reason is the yearly amount of money involved in the management of networks and servers.



The NORA -the Dutch National Interoperability Framework or NIF- supports all these (reference) architectures at strategic and operational level. In particular to stimulate and secure use and re-use of existing solutions, building blocks and standards.

But also to pass on knowledge of and insight into issues at a national level on topics such as semantics, security, archiving information and 'mobility'.

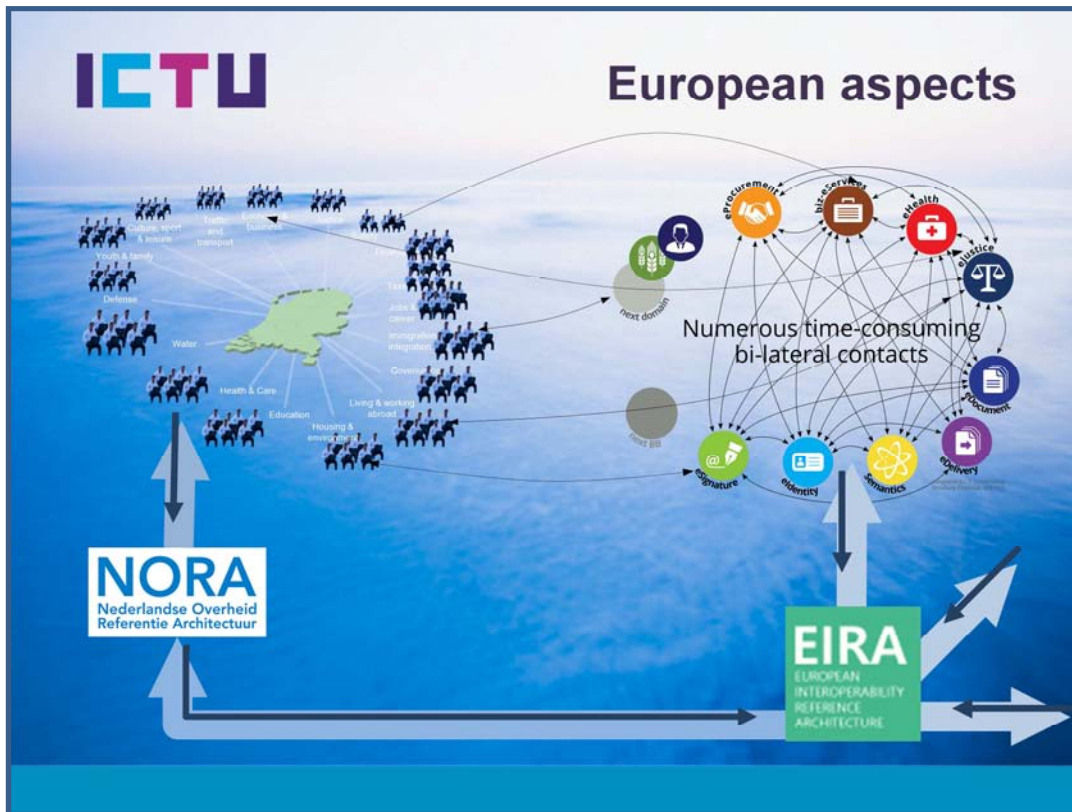
Alignment with the requirements from the domains is done through regular consultation (5 times a year) and through surveys and thematic meetings.

Therefore, the NORA is the backbone of the Dutch Architecture.

### **Why do we in the Netherlands focus that strong on domains?**

In the democratic way of decision making, governance and establishing laws and regulations, the focus is always on the currently actual issues in society. The huge number of laws and regulations is far too complex for anyone to oversee. It is therefore no longer possible to introduce legislation with a general impact "top-down" as if there was a green-field.

Domains themselves know best how to re-arrange their regulations and the use of building blocks and standards.



Internationally it is therefore for the Netherlands, but certainly also for other countries, of great importance that the domains take the initiative in the development of cross-border services.

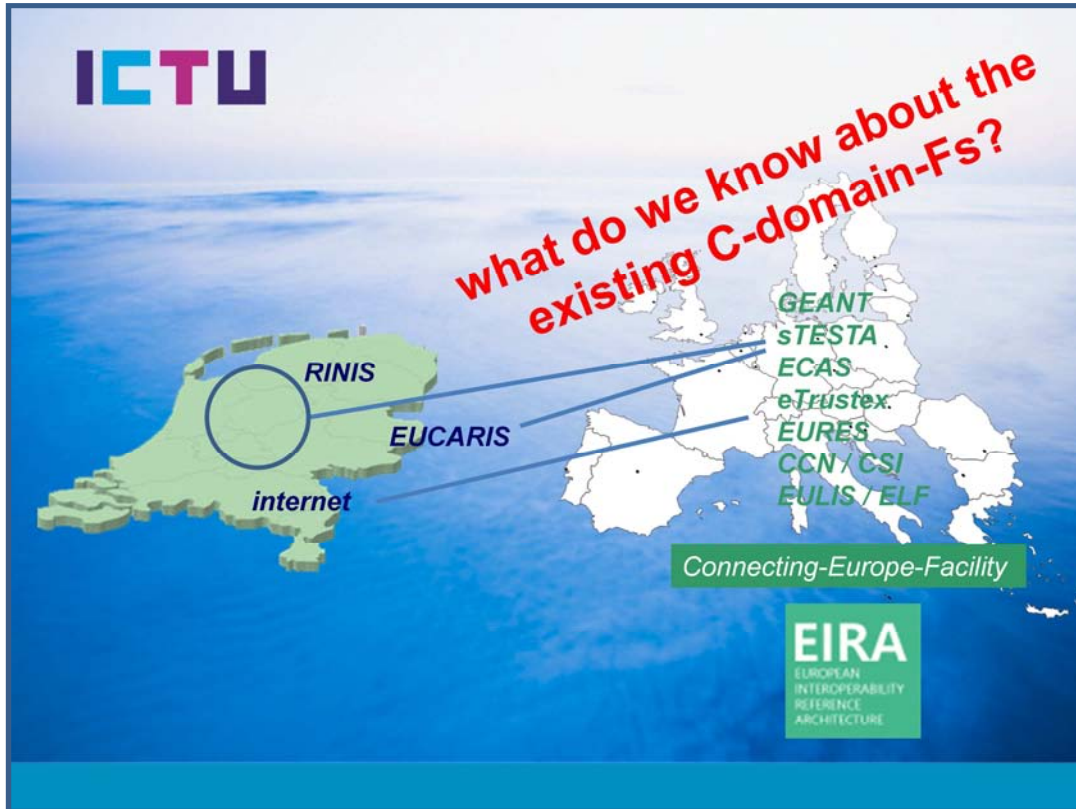
The involved NIFs can play a strong supporting role, in order that international developments are not picked up too differently in each domain.

And from Europe, the EIRA can possibly have a same supporting role as the NORA plays in the Netherlands: both towards the domains and towards the NIFs !

Preferably, according to the approach that is also proposed by e-SENS.

Two examples in which we are looking for more cooperation on European level: CEF and Core Vocabularies.





### The Connecting Europe Facility (CEF)

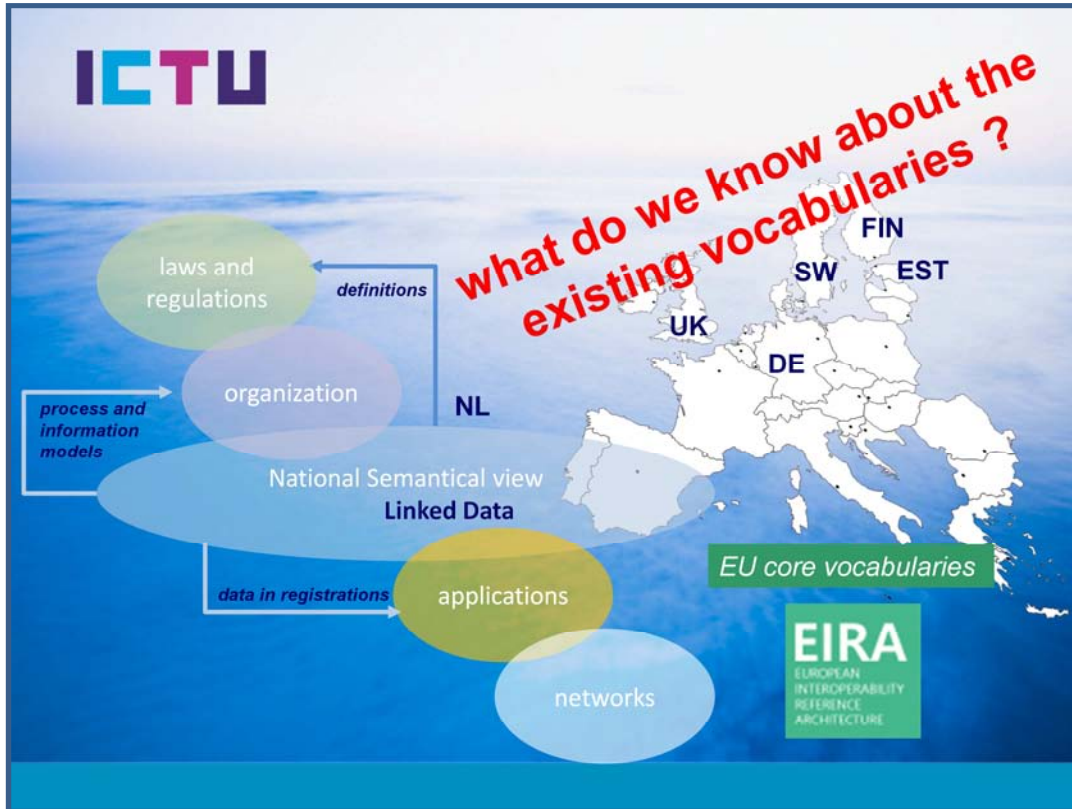
What knowledge do we share on the existing situation in the different Member States and the needs of domains for the CEF?

In the Netherlands as a first step, we have examined which cross-border data exchange is taking place and how the CEF in the future could have a place there. In the short term there seems to be little need. More insight is needed on the development of effective international cross-border services.

The EUCARIS network is a good initiative from member states and is now adopted by the EU.

The Netherlands have a yearly (cross-border ) data exchange of ca. 50 million messages while costs stay as low as EUR 100.000,-

RINIS handles 1.000.000.000 messages a year at low costs !



### Core Vocabularies.

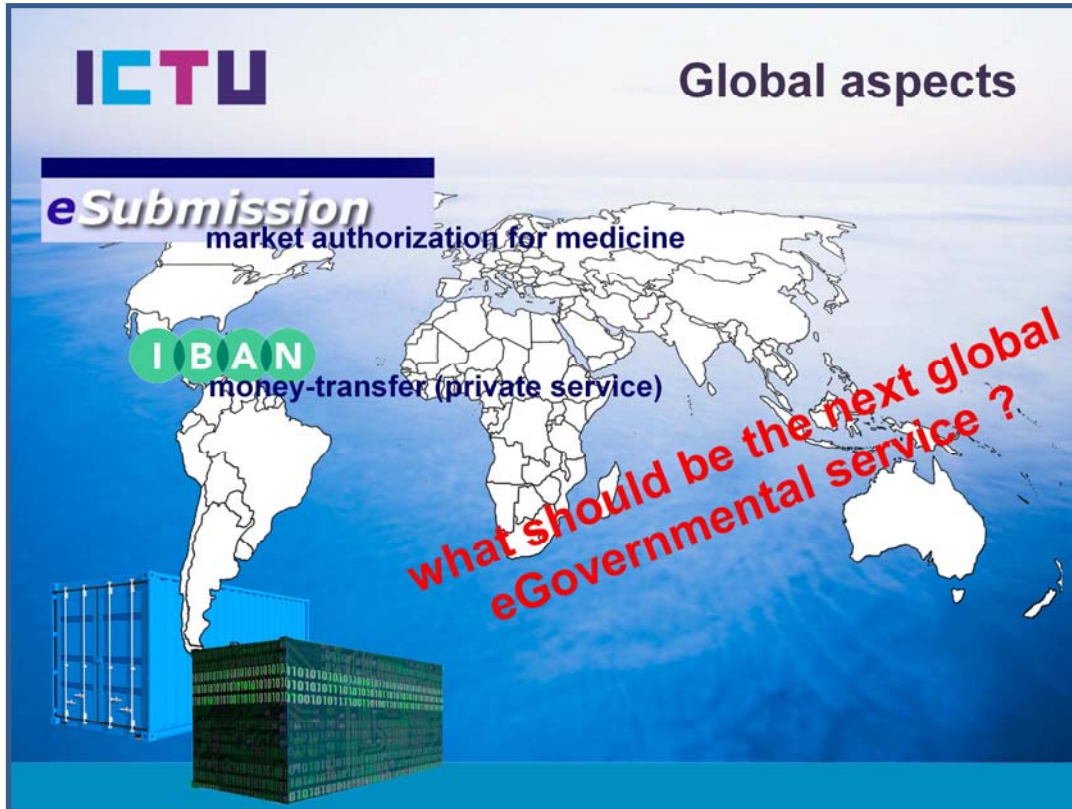
What knowledge do we share on the needs here and the link of the Core vocabularies to the National Service Vocabularies?

In the Netherlands we have as a first step examined which data dictionaries are currently available and what differences exist between these. These differences are too many to fix, especially since some disparities are determined by definitions in laws and regulations. How do we deal with these situations?

By mapping the differences and sharing the differences with each other through the use of Linked Data we share our knowledge.

See: [http://www.noraonline.nl/wiki/Nationaal\\_Semantisch\\_Vlak](http://www.noraonline.nl/wiki/Nationaal_Semantisch_Vlak)

In the short term the European Core Vocabularies seem to offer little assistance: it is typically a national issue that will need much attention and priority to solve. For cross-border services, the Core Vocabularies will prove to deliver more value, presumed there is good attunement and alignment with the countries concerned.



Due to globalization, various standards arise from agreements that need to be made. Also outside Europe.

For example, standards regarding containers for transport logistics.

But what arrangements are made for the digital transport with its electronic bits and bytes?

A good example of a global eGovernmental service is the eCTD, the Electronic Common Technical Document for Marketing Authorization for a medicinal product.

(btw, banking is a private service ...)

So we look for a worldwide standard for encoding into 0's and 1's the global public services to citizens and to businesses!

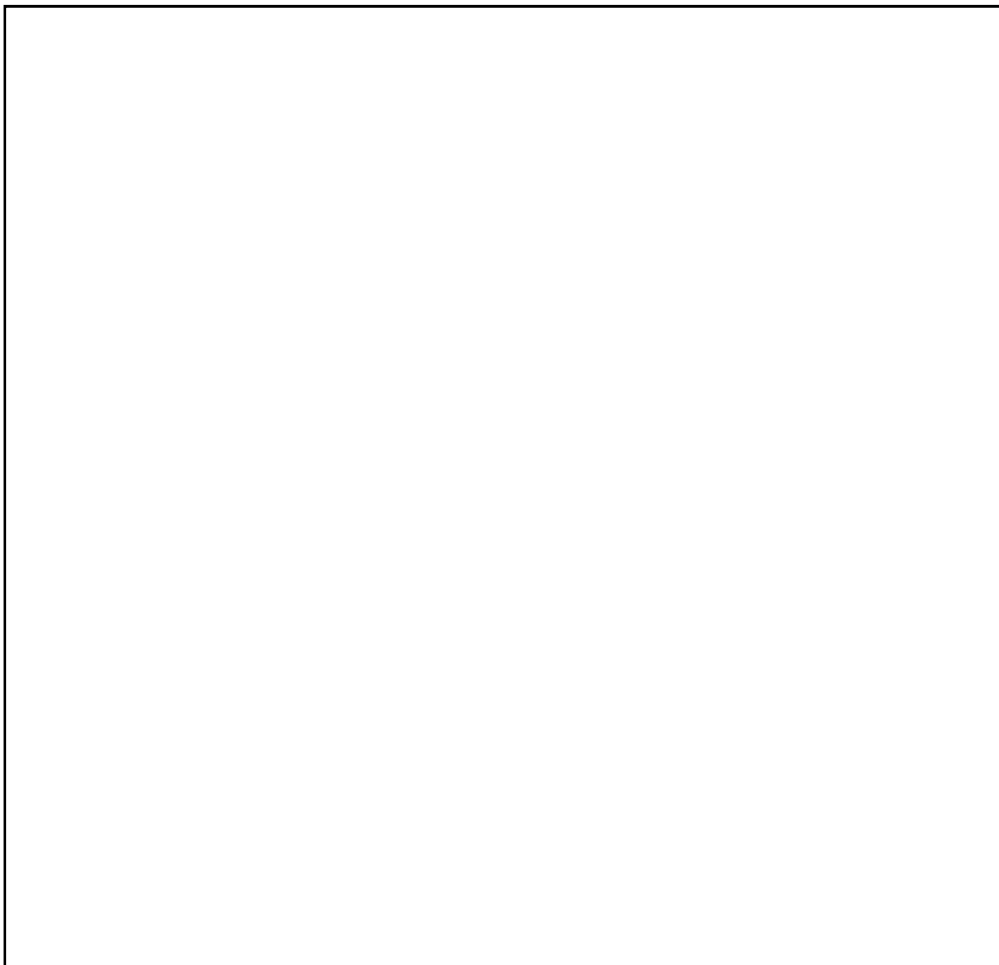
What a big difference we see there still between countries ...

The European Committee could do a great preparatory work here, together with involved MS's, to help solve global issues.



## Summary and call for action

- 1. In the Netherlands, governmental services are designed in the domains and in close contact with all relevant stakeholders.**
- 2. These communities provide the NORA with the necessary input, critical feedback and support, so we can tackle cross-domain challenges together.**
- 3. NORA hopes for a similar community at the European level, that can face cross-domain, cross-border challenges together.**
- 4. Join us in that community: share your needs, your best practices, your experience and your questions !**





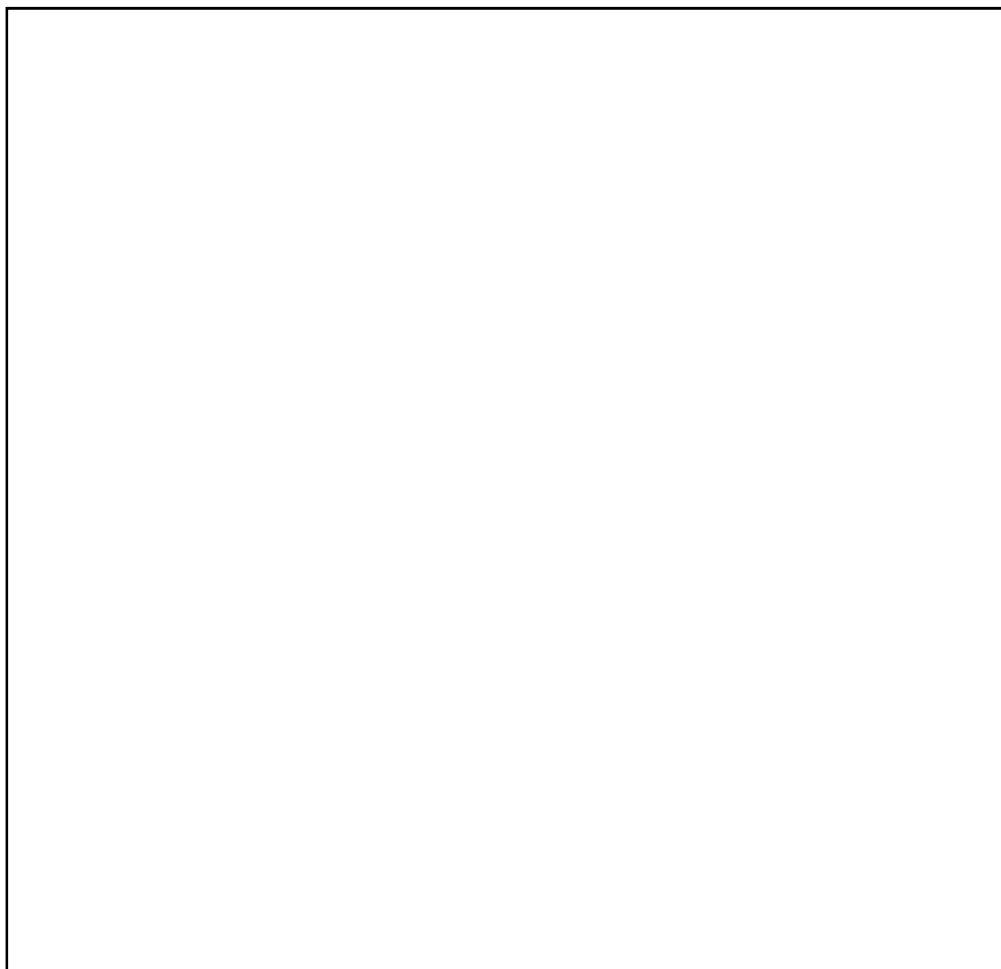
## Contact

[www.NORAonline.nl](http://www.NORAonline.nl) (wiki)

[www.digitaleoverheid.nl/nora](http://www.digitaleoverheid.nl/nora)

<https://www.ictu.nl/english/>

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**NORA governance** according to the BOMOS-standard.

The Board members are the highest level civil servants and representatives of all the Dutch governmental organizations and sets the future outlines.

Propositions on these outlines are made by the representatives of the NORA-daughters, the (reference)architectures of the domains. They collect input from the operational level in their organizations and co-working partners.

Major changes in the NORA follow a process of “open review” among public, but also private, organizations (BOMOS).