

## HIPS-NET STATUS REPORT YEAR 7

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“ESTABLISHING A PAN-EUROPEAN UNDERSTANDING OF ADMISSIBLE HYDROGEN CONCENTRATION IN THE NATURAL GAS GRID”

This status report summarises HIPS-NET activities throughout the preceding year and gives an overview on the spending of financial means. The seventh network year commenced officially in October 2019 and finished in September 2020.

1. DBI, supported by HIPS-NET partners, issued **newsletters** to inform on latest available knowledge around the core topics:
  - Gas turbines and engines
  - Porous underground gas storage
  - Steel CNG1 vehicle tanks
  - Natural gas as working medium / interconnection of different industries
  - Cross border transmission
  - Safety characteristics of H<sub>2</sub>/natural gas blends
  - Energy metering
  - Standardisation, regulatory framework
  - **\*new\*** Pure hydrogen infrastructure

We additionally keep a minor focus on the general development of hydrogen projects/strategies, power-to-gas, and further topics around the utilisation of (renewable) hydrogen.

We agreed in the HIPS-NET workshop in June 2019 to switch the interval of the newsletters from quarterly editions to every two months with shorter newsletters. The trial began with newsletter #23 with the idea to issue 6 newsletters per year with 5 articles each. The trial period revealed that the idea is charming and working. It also shows that more flexibility is of advantage, since we often experience situations where exiting project results or reports reach us last minute and we rather include them to the current newsletter instead of postponing them to the following one. And we encounter sometimes last-minute changes with articles which cannot be published for various reasons as planned. The reality during our trial period shows that keeping the number of newsletters flexible and the number of articles as well. This works well from the editorial perspective. We issue about 32 articles per year (taken from the old interval 4 newsletter with 8 articles each) and spread this over the year with the intention to issue newsletters rather six times per year than only 4 times. We will continue to follow this approach and will ask for feedback in the next HIPS-NET meeting in June 2021. And further good news, we reached the agreed scope (per number of articles) with the newsletter in October 2020 – almost at the end of the network year. We caught up the delay we gathered in 2018.

2. The **annual meeting in June 2020** was special, due to Covid19. We did not meet in Brussels but online. Anja and Josephine organised a meeting from the scratch. With the idea to find a format that is informative and interactive – and without prior experience in giving online workshops, we tested different software ahead of the workshop. Zoom put some of our colleagues in organisational challenges but almost all found a way to take part. The breakout rooms in zoom were interesting for exchanging in smaller groups – a try to recall the networking moments that we know from the meetings. Polls per mentimeter worked well. You as members supported us with their opinion to split it in two shorter days instead of a one-day-meeting. Gert guided us through the 2 days' meeting with support of Eva, Néstor, William, Alfons (presentations) and Robert, Alexandra, Adriaan, Guilhem, Elbert, Micha, Jean (moderation of the discussion groups). Thank you to everyone. And thank you for the feedback; we learned a few lessons.

Here the short impression of the polls, more in the Members' Area and [here](#):

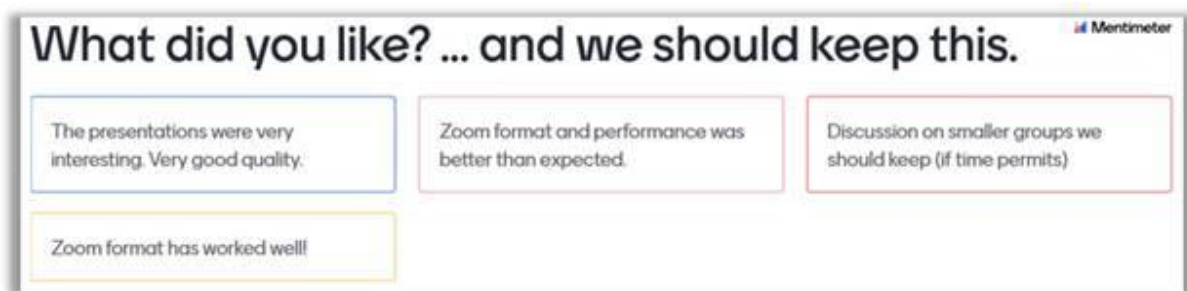


Figure 1 - Poll during the HIPS-NET meeting 2020

The workshop presentations were disseminated between the partners and uploaded in the members' area of the HIPS-NET website. A summary of the presentations held at the workshop was included in the newsletter #28.

**Additional scope / tasks:** The survey during the workshop revealed ideas that are stronger supported by the members.

- ⇒ to compile a list of studies that were content of the newsletters in the past 7 years with the according links. This can give an overview and will ease the access to the according part of newsletters. (running task – to be finalised in 2021)
- ⇒ to add the core topic: 'pure hydrogen networks' (finalised by now)

3. Additional Scope | Activities around the **HIPS-NET website** are as usual. We did not give it special attention and mainly update the website with (new logo, new PtG-map, current partners and documents in the Members' Area, etc). The HIPS-NET **website** supports the public recognition as well as to provide a base for the documentation of newsletters, presentations, status report, etc. It has a public part with general information about HIPS-NET which is kept rather simple to provide necessary information. The other part, the members' area, is secured by individual login and password. The members' area contains a number of documents for download, such as newsletters, publications, presentations, reports and the Power-to-Gas database. The network is prominently displayed with a link on <http://gerg.eu/>. The website address is <http://www.dbi-gruppe.de/hips-net.html>.

Josephine evaluated the use of the website in further detail and Gert presented the outcomes in the past HIPS-NET meeting. So far, the network members do not see the urge to relaunch the website. This is at least the feedback we got in the poll during the workshop.

**UPDATE:** We updated the **Power-to-Gas database** (worldwide) with intensive research. The data collection is finished, and a worldwide map developed. We presented the results via e-mail (5<sup>th</sup> August 2021). If you are interested in the data collection, please have a look at the Members' Area on the website.



This interactive map reveals further information as soon as you scroll in and click on single projects. Thank you for the feedback we received so far. We added the suggested changes. If you have additional information or want to change anything, please send an email to [josephine.glandien@dbi-gruppe.de](mailto:josephine.glandien@dbi-gruppe.de).

**UPDATE:** We further updated the **HIPS-NET logo** and the figure with the **HIPS-NET core-topics**. We use the change for relaunch as we integrated the additional core topic. We now have a relaunched logo and for the core-topics the choice between two designs.

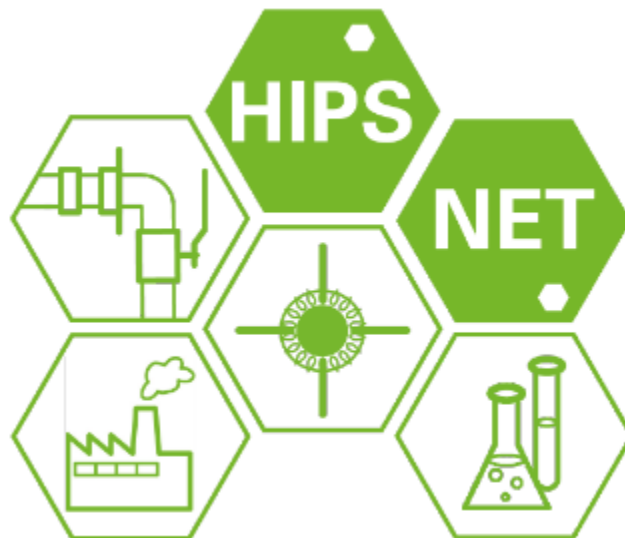


Figure 2 - HIPS-NET logo

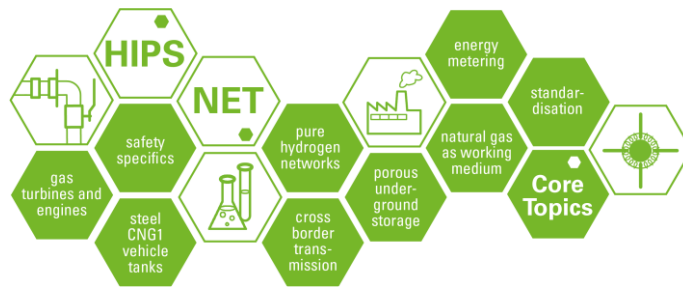


Figure 3 - HIPS-NET core topics - main design

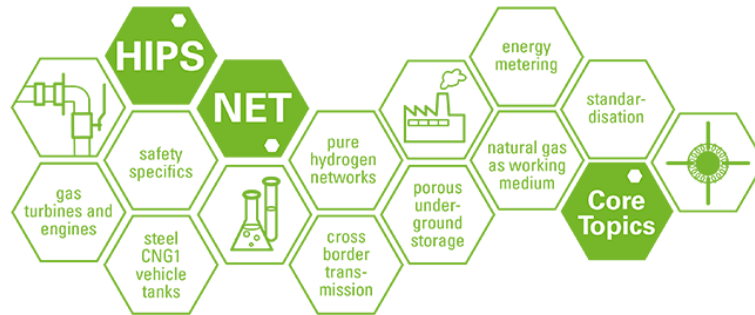


Figure 4 - HIPS-NET core topics - further design

We distributed the new design with the 29<sup>th</sup> Newsletter and the e-mail in October 2020 for evaluation and received one request for changes. We hope, you like it.

4. **Annual Budget:** HIPS-NET is supported by 2,000 €/a per partner. The network has grown to 40 partners in 2019/2020. New partner is

- TNO (Norway)

We welcomed the new partner at the annual workshop in Brussels. The network had an annual budget in the sixth year (2019/20) of 80,000 € (40\*2,000 €). Volkswagen left the network by the end of this project year due to a shift in internal strategic realignment.

The overview of the **budget spending** is summarised in annex A.

## 5. Year 8 | Working Plan

### Mandatory responsibilities

- Issuing up to 6 newsletters per year in the past (in total with 32 articles per year)
- Annual workshop on 16<sup>th</sup>/17<sup>th</sup> June 2021 – hopefully in Brussels
- Addressing open R&D subjects and communication e.g. to the EC
- Preparing a short status report

### Additional scope (depending on available budget)

- Maintaining HIPS-NET website
- List with links to studies from published HIPS-NET articles
- Maintaining contact to CEN/CENELEC
- *tbd*



## 6. Compendium of 7<sup>th</sup> Project Year Newsletters

We attached to this brief status report a table of content of all newsletters of the previous year with active links to the articles in the newsletters. We hope you find this compilation useful in case you search for distinct information regarding our network topics.

*Last but not least*

We, Gert, Anja, Josephine – the organisational HIPS-NET team – thank you as partner for very much for your continuous support in the network. Please feel always free to send us your thoughts on the network, information you wish to share about projects you perform or have heard of, and the ideas we cannot think of at the moment but add value to our network.

## ANNEX A:

### HIPS-NET - Overview of Budget Spending

Including Outlook

Category	Item	Pers.	Time required	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	running 2019/20	planned 2020/21
<b>Income</b>	Partner [No.]			30	30	32	35	36	36	39	40
	Membership Fee			2,000 €	2,000 €	2,000 €	2,000 €	2,000 €	2,000 €	2,000 €	2,000 €
	<b>Annual Budget</b>			<b>60,000 €</b>	<b>60,000 €</b>	<b>64,000 €</b>	<b>70,000 €</b>	<b>72,000 €</b>	<b>72,000 €</b>	<b>78,000 €</b>	<b>80,000 €</b>
<b>Expenses</b>											
<b>Administration</b>	Agreements (2013/14)	15	days / year	8,250 €	- €	- €	- €	- €	- €	- €	- €
	Agreements (2014/15)	10	days / year	- €	5,600 €	- €	- €	- €	- €	- €	- €
	Agreements (2015/16)	5	days / year	- €	- €	2,850 €	- €	- €	- €	- €	- €
	Agreements (2016/17)	3	days / year	- €	- €	- €	1,740 €	- €	- €	- €	- €
	Agreements (2017/18)	2	days / year	- €	- €	- €	- €	1,200 €	- €	- €	- €
	Agreements (2018/19)	1	days / year	- €	- €	- €	- €	- €	610 €	- €	- €
	Agreements (2019/20)	1	days / year	- €	- €	- €	- €	- €	- €	630 €	- €
	Agreements (2020/21)	1	days / year	- €	- €	- €	- €	- €	- €	- €	630 €
	Invoicing	1.5	days / year	825 €	840 €	855 €	870 €	900 €	915 €	945 €	945 €
	Miscellaneous (incoming banking fees)	-	-	19 €	25 €	25 €	25 €	25 €	25 €	25 €	25 €
<b>Administration</b>	<b>Total</b>			<b>9,094 €</b>	<b>6,465 €</b>	<b>3,705 €</b>	<b>2,635 €</b>	<b>2,125 €</b>	<b>1,550 €</b>	<b>1,600 €</b>	<b>1,600 €</b>
<b>Promotion</b>	External Presentation of the Network	3	days / year	1,650 €	1,680 €	1,710 €	1,740 €	1,800 €	1,830 €	1,890 €	1,890 €
	Acquisition of New Partners	5	days / year	2,750 €	2,800 €	2,850 €	2,900 €	3,000 €	3,050 €	3,150 €	3,150 €
<b>Promotion</b>	<b>Total</b>			<b>4,400 €</b>	<b>4,480 €</b>	<b>4,560 €</b>	<b>4,640 €</b>	<b>4,800 €</b>	<b>4,880 €</b>	<b>5,040 €</b>	<b>5,040 €</b>
<b>Website</b>	Creation (incl. Subcontracting)	10	days	- €	- €	7,700 €	- €	- €	- €	- €	- €
	Maintenance incl. minor adoptions 2016	6	days / year	- €	- €	3,420 €	- €	- €	- €	- €	- €
	Ongoing Maintenance	5	days / year	- €	- €	- €	2,900 €	3,000 €	3,050 €	3,150 €	3,150 €
<b>Website</b>	<b>Total</b>			<b>- €</b>	<b>- €</b>	<b>11,120 €</b>	<b>2,900 €</b>	<b>3,000 €</b>	<b>3,050 €</b>	<b>3,150 €</b>	<b>3,150 €</b>
<b>Editorial Work</b>	Editorial Meeting	3	0.5 days / newsletter	3,300 €	3,360 €	3,420 €	3,480 €	3,600 €	4,575 €	5,670 €	5,670 €
	Research and Writing of Articles	1.5	days / article	26,400 €	26,880 €	27,360 €	27,840 €	28,800 €	29,280 €	28,350 €	28,350 €
	Proofreading of Articles	0.5	day / article	8,800 €	8,960 €	9,120 €	9,280 €	9,600 €	9,760 €	9,450 €	9,450 €
	Layout Newsletter	2.0	days / newsletter	4,400 €	4,480 €	4,560 €	4,640 €	4,800 €	6,100 €	7,560 €	7,560 €
	Proofreading Newsletter	2	0.5 day / newsletter	2,200 €	2,240 €	2,280 €	2,320 €	2,400 €	3,050 €	3,780 €	3,780 €
<b>Editorial Work</b>	<b>Total</b>			<b>45,100 €</b>	<b>45,920 €</b>	<b>46,740 €</b>	<b>47,560 €</b>	<b>49,200 €</b>	<b>52,765 €</b>	<b>54,810 €</b>	<b>54,810 €</b>
<b>Workshop</b>	Preparation	10	days / year	5,500 €	5,600 €	5,700 €	5,800 €	6,000 €	6,100 €	6,300 €	6,300 €
	Realisation	3	1.5 days / year	2,475 €	2,520 €	2,565 €	2,610 €	2,700 €	2,745 €	2,835 €	2,835 €
	Location Rent and Lunch	-	-	GERG	GERG	GERG	GERG	GERG	GERG	GERG	GERG
	Catering (Casual Dinner)	-	-	1,200 €	998 €	GERG	689 €	1,100 €	1,100 €	1,100 €	1,100 €
	Travel Expenses	3	-	1,152 €	1,154 €	1,200 €	1,112 €	1,200 €	1,200 €	1,500 €	1,500 €
	Follow-up Work	5	days / year	2,750 €	2,800 €	2,850 €	2,900 €	3,000 €	3,050 €	3,150 €	3,150 €
<b>Workshop</b>	<b>Total</b>			<b>13,077 €</b>	<b>13,072 €</b>	<b>12,315 €</b>	<b>13,111 €</b>	<b>14,000 €</b>	<b>14,195 €</b>	<b>14,885 €</b>	<b>14,885 €</b>
<b>Final Report</b>	Creation of the Report	1	days / year	1,650 €	1,680 €	570 €	580 €	600 €	610 €	630 €	630 €
<b>Final Report</b>	<b>Total</b>			<b>1,650 €</b>	<b>1,680 €</b>	<b>570 €</b>	<b>580 €</b>	<b>600 €</b>	<b>610 €</b>	<b>630 €</b>	<b>630 €</b>
<b>Subcontracting</b>	Service Fee + Travel Expenses	-	-	14,480 €	10,437 €	- €	- €	- €	- €	- €	- €
<b>Subcontracting</b>	<b>Total</b>			<b>14,480 €</b>	<b>10,437 €</b>	<b>- €</b>	<b>- €</b>	<b>- €</b>	<b>- €</b>	<b>- €</b>	<b>- €</b>
<b>Total</b>	(Expenses)			<b>87,801 €</b>	<b>82,053 €</b>	<b>79,010 €</b>	<b>71,426 €</b>	<b>73,725 €</b>	<b>77,050 €</b>	<b>80,115 €</b>	<b>80,115 €</b>
<b>Result</b>	(Income - Expenses)			<b>-27,801 €</b>	<b>-22,053 €</b>	<b>-15,010 €</b>	<b>-1,426 €</b>	<b>-1,725 €</b>	<b>-5,050 €</b>	<b>-2,115 €</b>	<b>-115 €</b>

