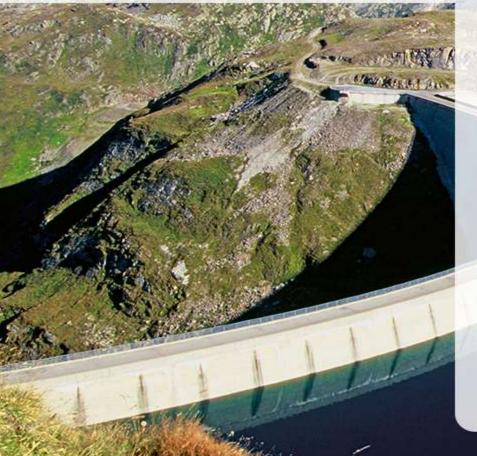
HYDROPOWER EUROPE

23rd February 2022



The future for the HYDROPOWER EUROPE Forum as a common and permanent voice in Europe

The Important Role of Hydropower in the Energy Transition

Mark Morris

(Samui France / HYDROPOWER EUROPE)



The HYDROPOWER EUROPE Forum is supported by a project that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 826010

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Overview

- 1. Where are we heading?
- 2. HYDROPOWER EUROPE
- 3. HYDROPOWER EUROPE Forum
- 4. Future direction
- 5. The approach
- 6. ETIP HYDROPOWER
- 7. Facilitating industry R&I collaboration
- 8. In conclusion...



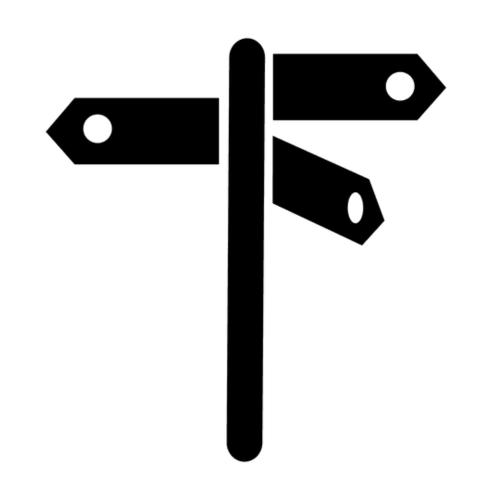
Ruppoldingen run-of-river powerplant, Switzerland



Where are we heading?

The HYDROPOWER EUROPE project was funded by the European Commission to – amongst other things – establish a Forum which provided a platform for all members of the hydropower community across Europe to express their views.

The HYDROPOWER EUROPE Forum is currently giving a voice to over 600 members drawn from a wide array of sectors and countries,





Over the past 3 years we have:

- Created the framework to support the Forum
- Encouraged participation in a wide programme of consultation events
- As we've just seen, identified and prioritised issues for research and industry action – leading to publication of the RIA and SIR
- Hosted events to discuss and help raise awareness on hydropower's role in the clean energy transition, and the need for hydropower to address environmental and sustainability goals

HYDROPOWER EUROPE Forum: The Future

HYDROPOWER EUROPE



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HYDROPOWER: HOW TO AVOID POTENTIAL POLLUTION SOURCES AND TO MITIGATE ENVIRONMENTAL IMPACTS BY INNOVATIVE MEASURES AND CONCEPTS

8 June 2021

U GREEN WEEK 2021 PARTNER EVENT



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The HYDROPOWER EUROPE Forum

During the 3 yr programme of HYDROPOWER EUROPE the Forum has grown to over 600 registrants, with ~70% from the EU27.

Surges in registrations reflect different consultation and dissemination events



No	EU Country	CP Keg
1	Austria	30
2	Belgium	30
3	Bulgaria	6
4	Croatia	2
5	Cyprus	0
6	Czech Republic	4
7	Denmark	0
8	Estonia	0
9	Finland	6
10	France	109
11	Germany	55
12	Greece	10
13	Hungary	2
14	Ireland	6
15	Italy	46
16	Latvia	0
17	Lithuania	2
18	Luxembourg	1
19	Malta	0
20	Netherlands	19
21	Poland	3
22	Portugal	24
23	Romania	6
24	Slovakia	1
25	Slovenia	7
26	Spain	21
27	Sweden	50
	Total	440

No		CP Reg
1	Albania	6
2	Afghanistan	1
3	Australia	1
4	Bhutan	1
5	Bolivia	1
6	Bosnia & Herzegovina	4
7	Brazil	1
8	Canada	2
9	China	1
10	Colombia	1
11	Georgia	1
12	Iceland	1
13	Indonesia	1
14	Japan	1
15	Kosovo	1
16	Laos	2
17	India	9
18	Macedonia	11
19	Moldova	2
20	Montenegro	1
21	Nepal	6
22	New Zealand	1
23	Norway	18
24	Pakistan	6
25	Peru	1
26	Russia	2
27	Serbia	2
28	Sri Lanka	1
29	Swaziland	1
30	Switzerland	51
31	Turkey	13
32	Uganda	2
33	UK	18
34	Ukraine	1
35	USA	8
36	Vietnam	1
	Total	181

HYDROPOWER EUROPE Forum: The Future



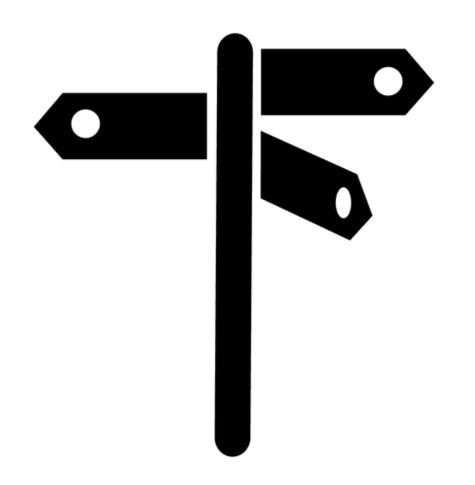
Future Direction

So, where from here?

Two roles / services have been identified:

(1) Providing a platform for a unified voice in Europe

(2) Facilitating the implementation of priority research and strategic actions through promoting and supporting industry collaboration



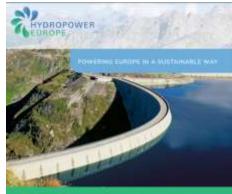


The Focus

In both of these actions we need to:

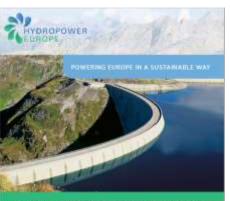
- Continue to raise awareness of hydropower and the essential role it can play in the clean energy transition
- Support and facilitate implementation of the Research & Innovation Agenda priories
- Support industry in addressing the issues highlighted by the Strategic Industry Roadmap

With the HYDROPOWER EUROPE Forum established – and growing with each consultation event – we need to focus that base of expertise and representation into helping to deliver these goals – but in a sustainable way.



RESEARCH & INNOVATION AGENDA EXTENDED EXECUTIVE SUMMARY BROCHURE DECEMBER 7023





STRATEGIC INDUSTRY ROADMAP EXTENDED EXECUTIVE SUMMARY BROCHURE DECEMBER 2021



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HYDROPOWER EUROPE Forum: The Future

23rd February 2023

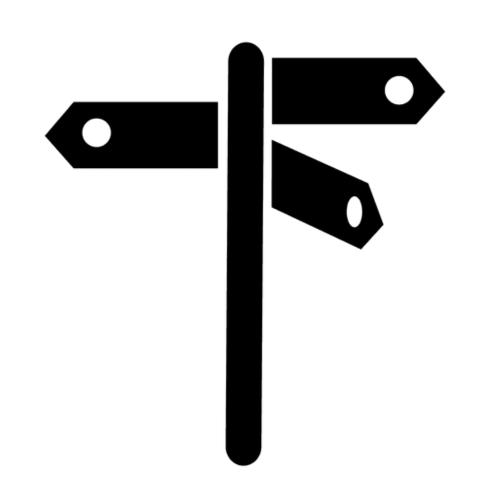


Future Direction

Industry has expressed interest and support for both of these actions over the past few years

Now we must refine, finalise and implement a sustainable business model which:

- 1. Meets specific industry needs
- 2. Does not duplicate the role of existing associations
- 3. Supports the clean energy transition
- 4. Facilitates achieving RIA and SIR objectives

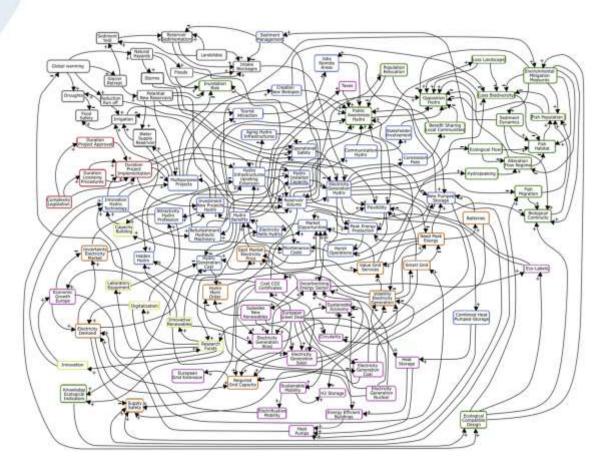




The Approach

So, the approach being taken is:

- To develop the detailed approaches / options for unified representation and R&I facilitation in conjunction with further industry consultation
- Balancing potential benefits against potential costs / sustainability model
- Implement...





ETIP HYDROPOWER

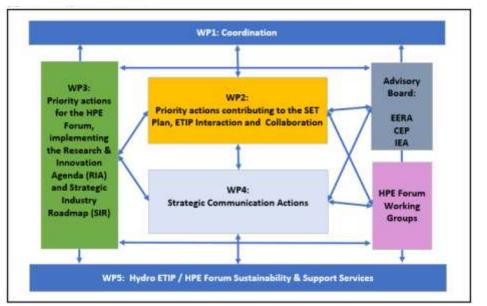
ETIP HYDROPOWER:

An opportunity arose within the recent Horizon Europe programme to seek support for an ETIP HYDROPOWER.

This would support greater integration of hydropower within the European Strategic Energy Technology (SET) Plan whilst also supporting the creation of self sustaining association. $\rightarrow \rightarrow \rightarrow$

News on this approach should come early Summer 22







Facilitating Industry R&I Collaboration

Considering in more detail:

(2) Facilitating implementation of priority research and strategic actions through promoting and supporting industry collaboration

- This is of immediate interest and value to many hydropower industry organisations
 - Hence is a mechanism where organisations could pay to participate, with these costs outweighed by the value gained through the research collaboration process
- This is <u>not</u> intended to replace or duplicate existing funded research programmes
 - rather, to facilitate industry collaboration on priority issues not yet being funded, or funded enough, or addressed quickly enough, elsewhere
 - hence it should complement and extend R&I actions <u>not</u> replace or duplicate



Facilitating Industry R&I Collaboration

 So - the goal here is to provide a service to the hydropower industry Supporting easier more cost effective access to priority R&D through, for example: More detailed tracking of R&I actions, priorities etc. → maintained signposting 	Signposting Continuous mapping & tracking of EU, National and Industry research initiatives and funding opportunities	
 Participation in small projects programme → collaboration on directly commissioned priority small projects 	Small Projects Programme	Industry
 Facilitating collaborative R&I actions between industry partners: Highlighting Individual Organisation Priorities Potential for Individual Funding Contributions Building sufficient momentum and commitment for action Implementing Repository for R&I information / actions 	Co-funded Projects Programme	Organisation Priorities Co-Funding Collaboration Shared Funding → Shared Access to IPR
 Flagging National, European & International research funding opportunities – encouraging collaboration 	Collaborative Bidding Programme	



Facilitating Industry R&I Collaboration

Avoiding:

- Duplication of existing association / network roles and services
- 'Cliff edge' implementation
 - (through phased implementation during ETIP programme)

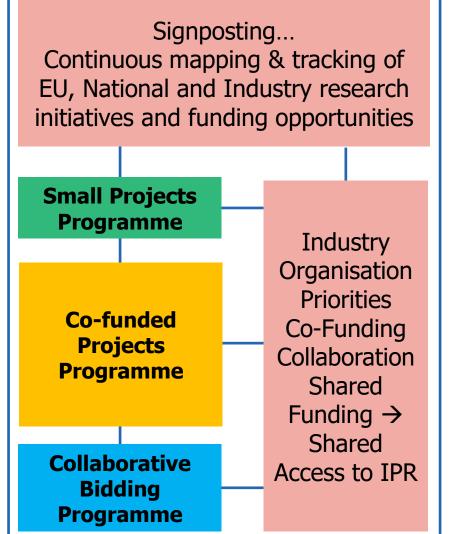
Signposting... Continuous mapping & tracking of EU, National and Industry research initiatives and funding opportunities **Small Projects Programme** Industry Organisation Priorities **Co-funded Co-Funding Projects** Collaboration **Programme** Shared Funding \rightarrow Shared **Collaborative** Access to IPR Bidding **Programme**



Timeframe and approach...

Our proposed approach is to:

- Introduce these ideas for industry feedback Autumn 2021 (now!)
- Seek EC funding for a hydropower ETIP
 - The opportunity exists now if successful, funding from ~mid 2022 for, say, 3 yrs
 - under which both ETIP activities and this business model would be implemented
 - Advantage of staged implementation for example, perhaps:
 - Structuring and setup in Yr 1 (2022-23)
 - Industry participation at 0% cost Yr 2 (2023-24)
 - Industry participation at 50% cost Yr 3 (2024-25)
 - ETIP concludes; HYDROPOWER Forum continues under full business model (2025 →)





In conclusion:

1. We propose a self sustainable future for the HYDROPOWER EUROPE Forum

- 2. Focus on (i) unified voice in Europe and (ii) facilitating industry priority R&I
 - Business model to be refined and confirmed via further industry consultation 22/23
- 3. Greater visibility and action within the European SET Plan
- 4. Transition via ETIP HYDROPOWER
 - Funding position should be clear by early Summer 22

