

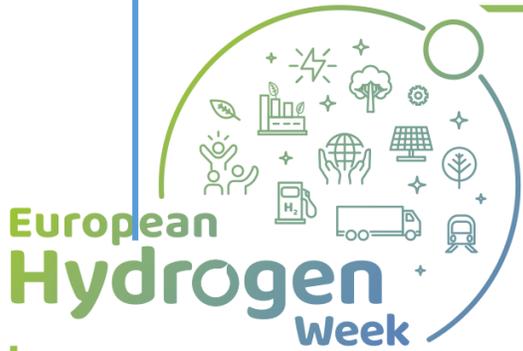
# JRC activities for the FCH 2 JU 2020 & planned activities 2021

As part of FCH 2 JU - JRC framework contract under H2020

FCH 2 JU Programme Review Days 23. 11. 2020

#PRD2020  
#CleanHydrogen





# JRC activities 2020

Knowledge Management

RCS

Safety

Programme targets

Programme assessment

TIM

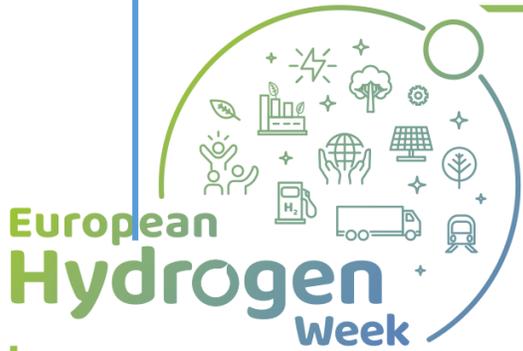
Strategy

Tests

Data bases

EHSP

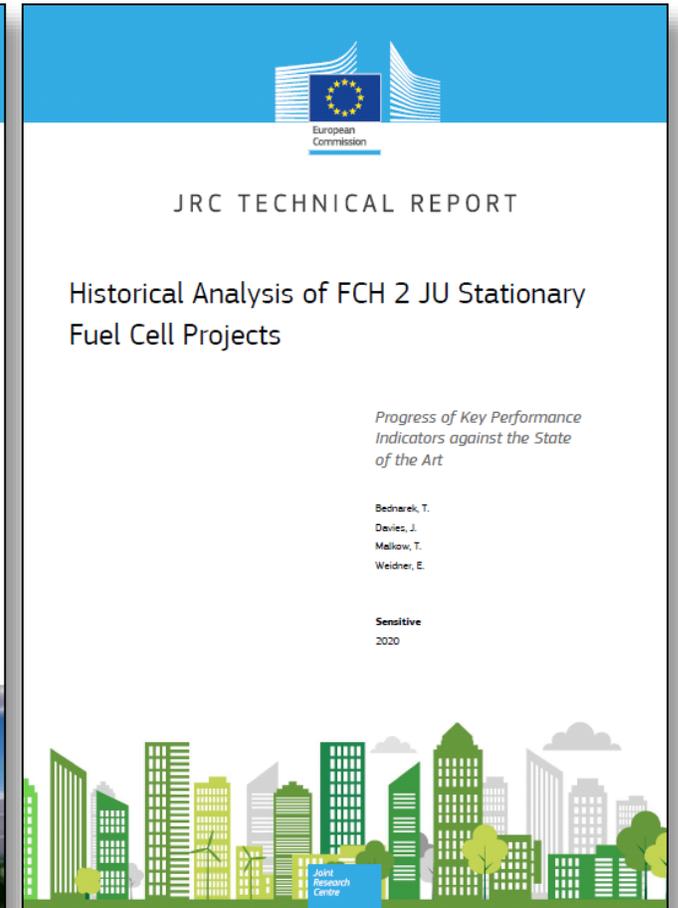
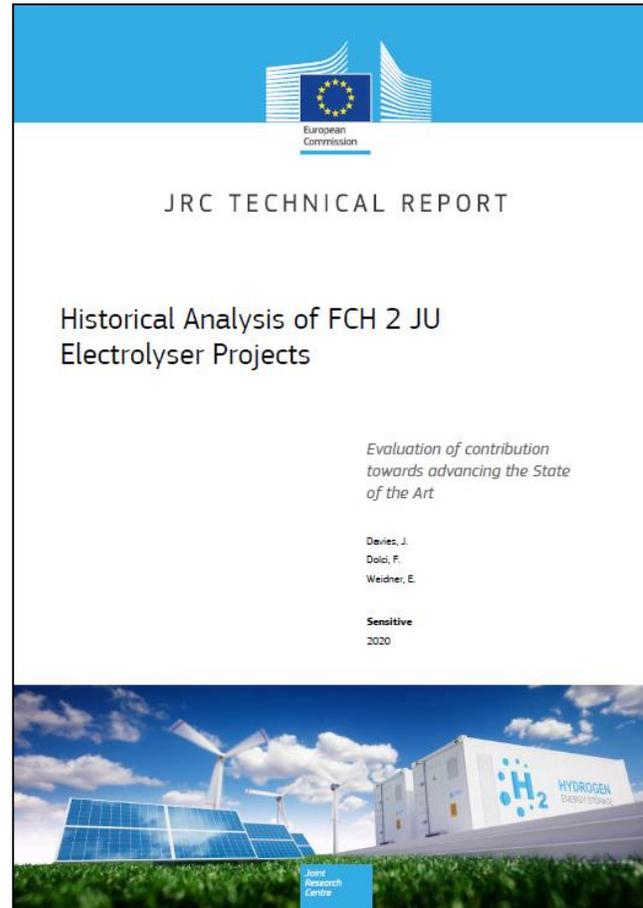
EMM European Media Monitor

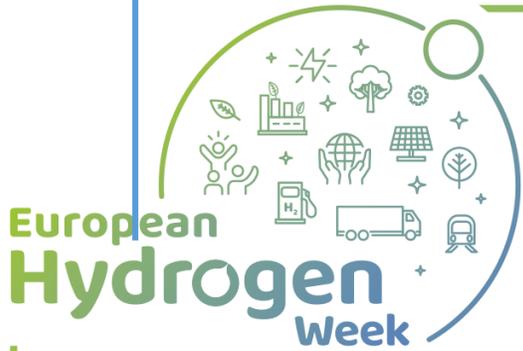


# Knowledge Management

Based on:

- JRC methodologies (patents analysis)
- TRUST data
- TIM analyses



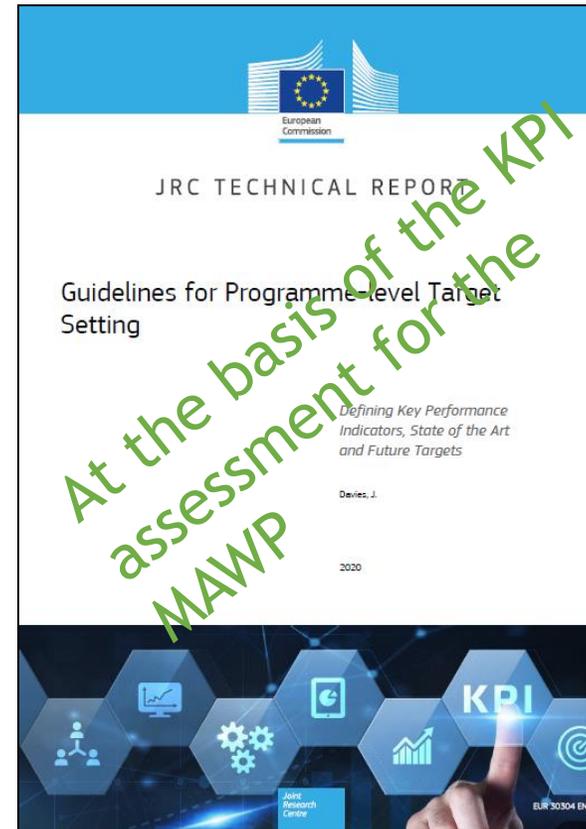


# Knowledge Management

## Annual Programme Review

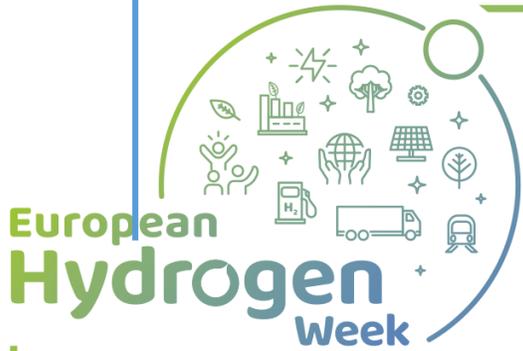


## MAWP KPI methodology

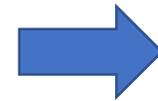
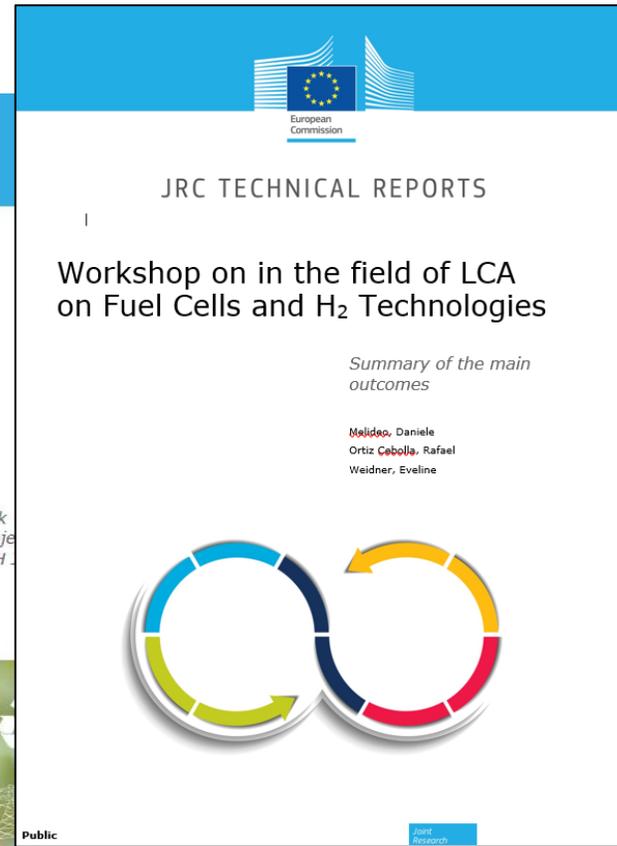
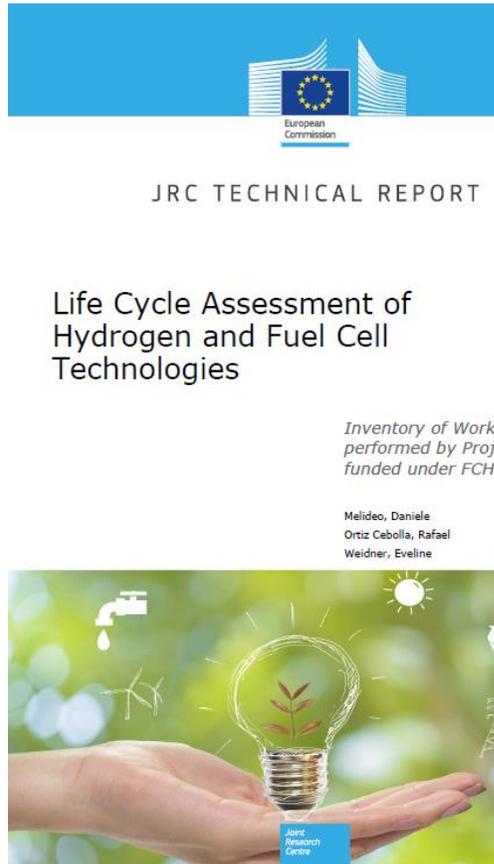


#PRD2020  
#CleanHydrogen



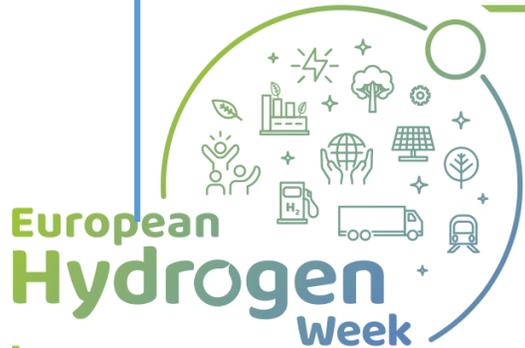


# Knowledge Management



## Impact:

- Establishing current status
- Input to AWP2020
- Preparation of increased support of JRC for sustainability topic (projects, reports)



European  
**Hydrogen**  
Week

**FCH** FUEL CELLS AND HYDROGEN  
JOINT UNDERTAKING



ABOUT US INITIATIVES PROJECTS PROCUREMENTS STAKEHOLDER FORUM PROGRAMME REVIEW DAYS CALLS FOR PROPOSALS & PROCUREMENTS

NEWS, EVENTS & MEDIA EUROPEAN HYDROGEN WEEK

ARCHIVED NEWSLETTER VIEW



NEWSLETTER Oct 2020

- FCH JU Programme and Projects Updates
- Fact of the Month
- Industry and Policy Headlines
- Upcoming Events

Dear reader,  
Today, on 8 October, we celebrate Hydrogen Day. I wish all of you a fantastic day and for those interested, there is a 24hrs online hydrogen conference ongoing with key speakers of the sector.

As Europe's ambition for hydrogen is huge, we organise for the first time **over The European Hydrogen Week** from 23 to 27 November 2020, make sure to block these dates and join us in a week packed with exciting battlefield talks, panel discussions and virtual cocktails.

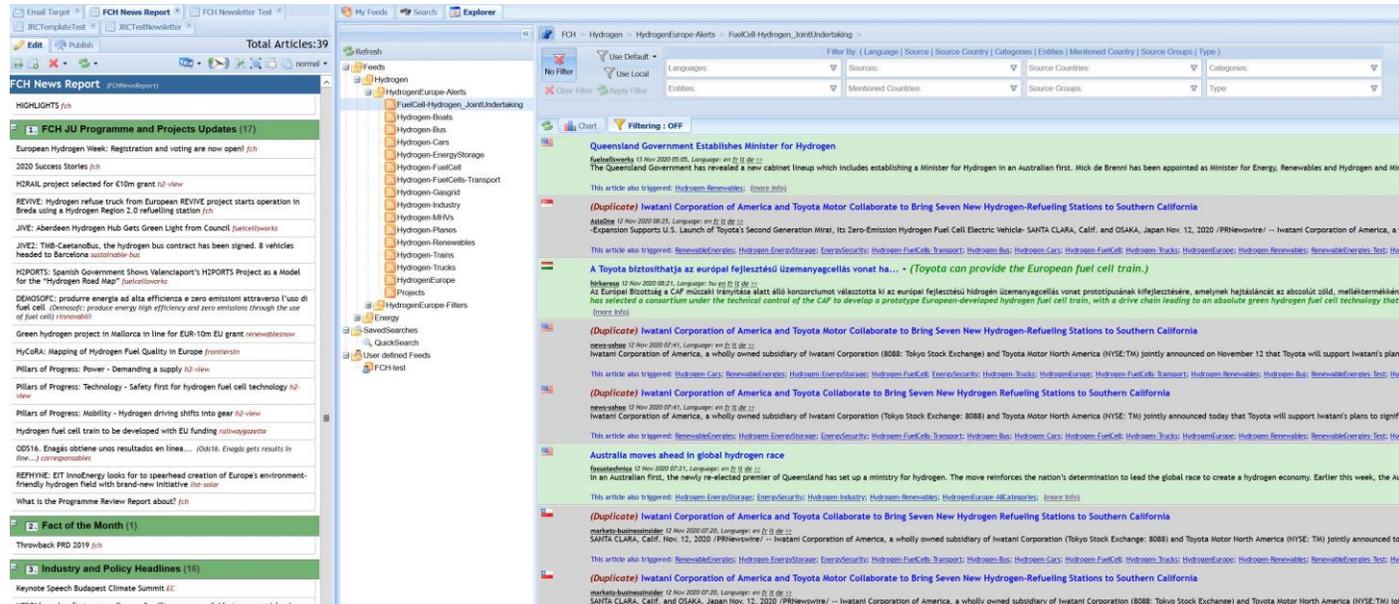
On the 26th, the European Hydrogen Forum jointly organised with DG GROW will have leading figures of the industry and European policy makers debating on how to realise the European hydrogen strategy. In addition, we will reveal cutting-edge research results and give awards to fantastic achievements.

Last month's newsletter showed how we moved from kW to MW scale in



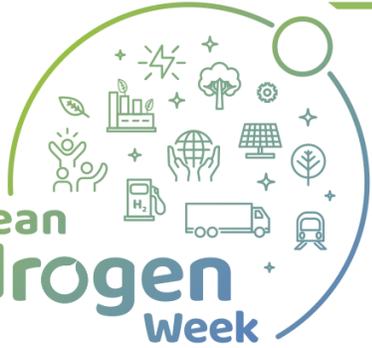
# EMM - Media Monitoring

- FCH Media Monitoring system regularly maintained and general helpdesk support
- Weekly monitoring of the results of the categories
- Monthly newsletter preparation, together with FCH
- Updated categories with keywords including keywords for new projects



#PRD2020  
#CleanHydrogen



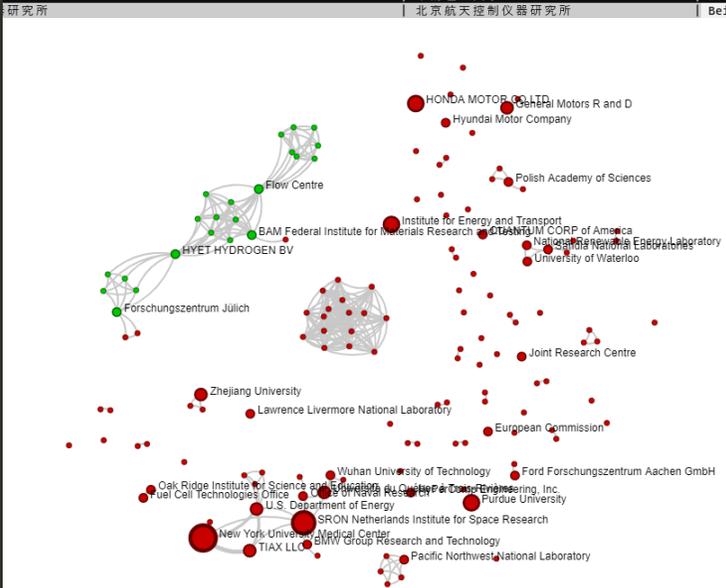


# TIM developments

Documents#	A	nv	name	mrgenome	cleaname
39	178	上海交通大学 上海交通大学 上海交通大学	上海交通大学	Shanghai Jiao Tong University	Shanghai Jiao Tong University
26	375	中国电子科技集团公司第四十研究所 中国电子科技集团公司第四十研究所 中国电子科技集团公司第四十研究所	中国电子科技集团公司第四十研究所	China Electronics Technology Group Corporation Institute fortieth	China Electronics Tech Group Corp
25	399	北京理工大学 北京理工大学 北京理工大学	北京理工大学	Beijing Institute of Technology	Beijing Institute of Technology
24	412	中国人民解放军国防科学技术大学 中国人民解放军国防科学技术大学 中国人民解放军国防科学技术大学	中国人民解放军国防科学技术大学	PLA University of Defense Technology	People's Liberation Army China (PLA)
24	430	セイコーエプソン株式会社 セイコーエプソン株式会社 セイコーエプソン株式会社	セイコーエプソン株式会社	Seiko Epson Corporation	Seiko Epson Corp
21	507	清华大学 清华大学 清华大学	清华大学	Tsinghua University	Tsinghua University
21	520	山东大学 山东大学 山东大学	山东大学	Shan Dong University	Shandong University
21	538	天津大学 天津大学 天津大学	天津大学	Tianjin University	Tianjin University
			西北工业大学	Northwestern Polytechnical University	Northwestern Polytechnical University (NPU)
			华南理工大学	South China University of Technology	South China University of Technology

Entries : 2535

Patent Keywords	Relevance
hydrogen storage (HS)	48
liquid hydrogen (LH)	31
hydrogen	22
liquid organic hydrogen carrier (LOHC)	18
fuel cell (FC)	17
cryo compressed	13
metal hydride (MH)	13
on board	11
tanks	11
compressed hydrogen	9
pressure vessel (PV)	8
cryo adsorption	8
LH2	8
cryogenic	7
onboard storage	7
cryogenic hydrogen	6
compressed gas	6
hydrogen energy	6
light harvesting 2 (LH2)	6
complex hydrides	5
liquid natural gas (LNG)	5
hydrogen carrier	5
sodium borohydride (SB)	5
1 methylindole	5
dehydrogenation	5



- Cleaner, richer data
- New technology spaces
- FCH funding tracking
- Tracking of results by beneficiaries
- Estimation of publications and patents numbers by the Clean Hydrogen Industry



# RCS Regulations & Standards

- **HARMONISED PROTOCOLS FOR Testing of LOW TEMPERATURE WATER Electrolysers** - the delayed report is ready for stakeholder comments
- Its scope ranges from cells to systems in the energy system, including the most recent input of project QUALYGRIDS

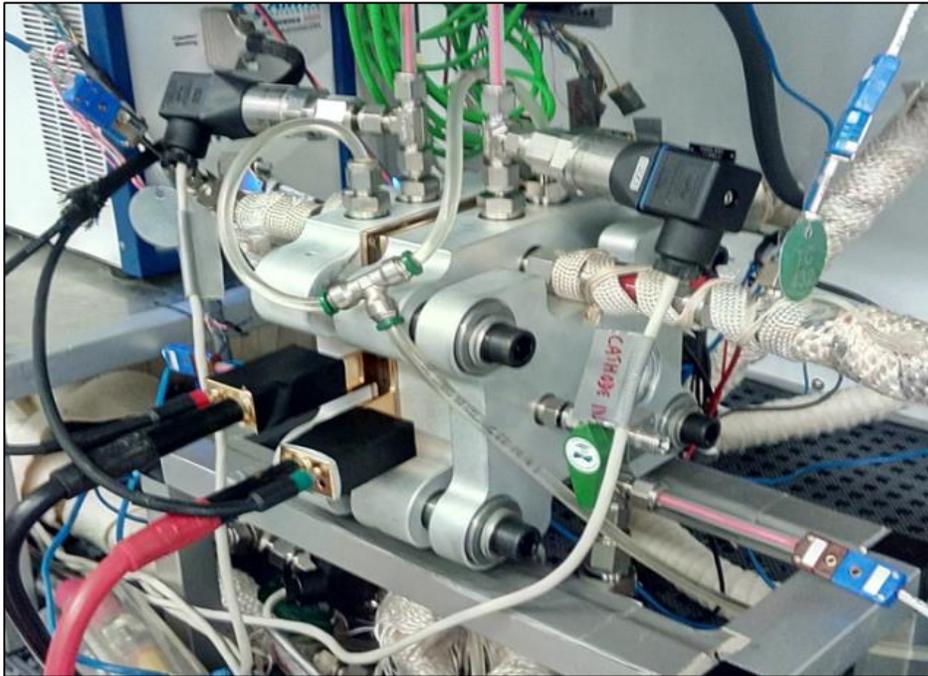
Strategy

Tests Harmonisation

# RCS Regulations & Standards

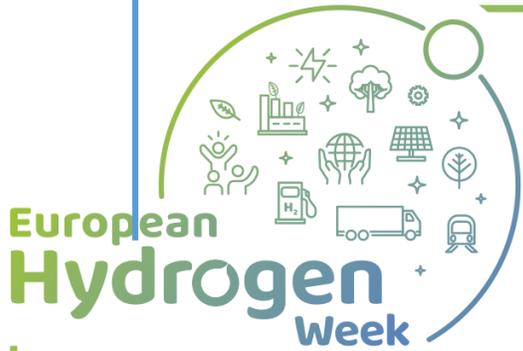
Strategy

Tests Harmonisation



**JRC ZEROVCELL**  
single cell test hardware

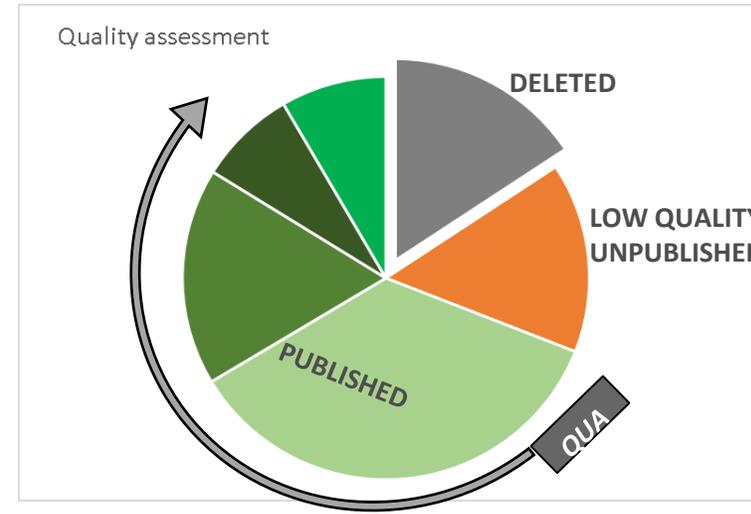
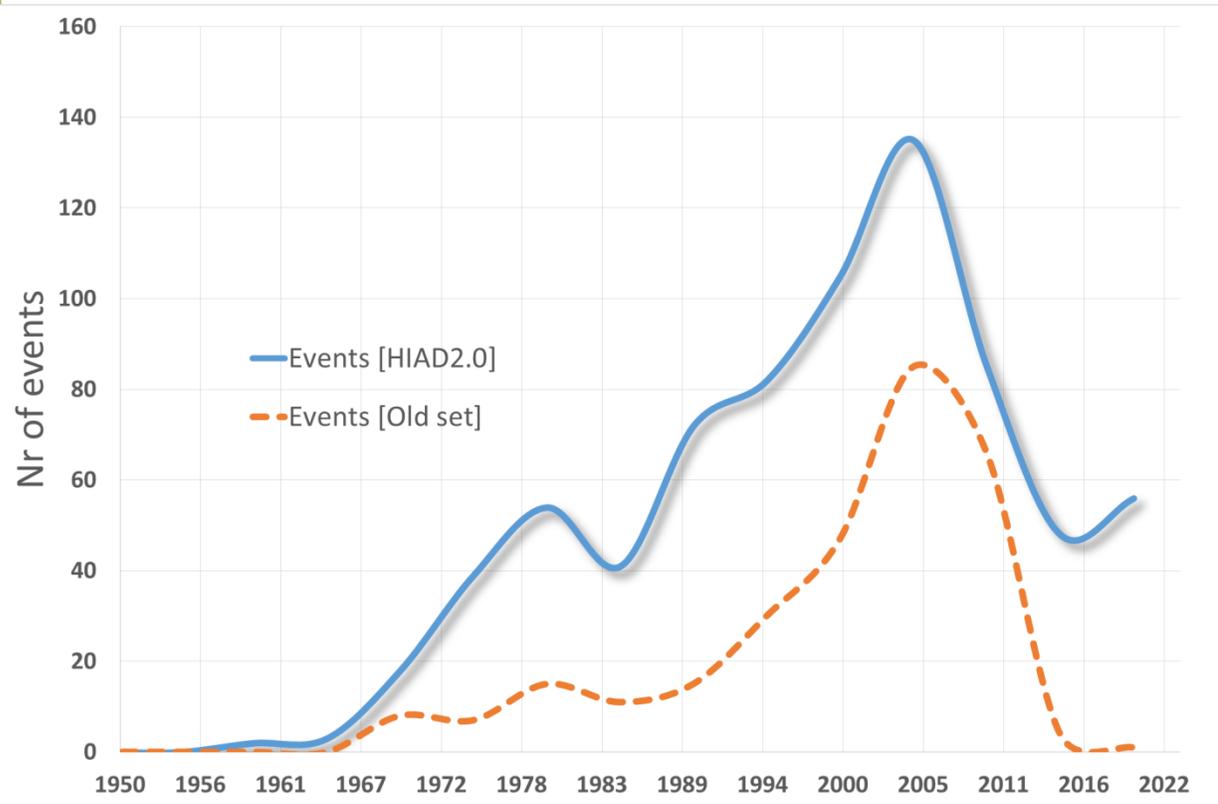
- (1) JRC has delivered a hardware allowing real MEA testing by minimising effects of the testing device;
- (2) design shared with ID FAST;
- (3) however the third party manufacturing for IDFAST partners had not respected the quality level required;
- (4) corrective actions to identify manufacturing shortcoming and optimising IDFAST testing ongoing

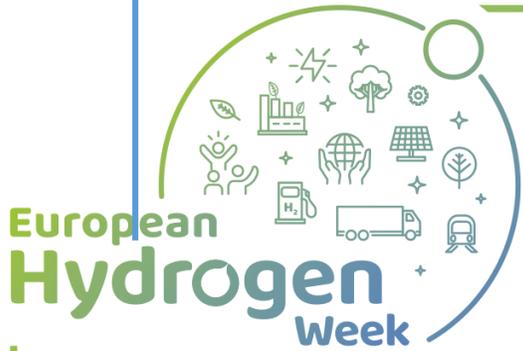


# Safety-supporting activities

Contribution to EHSP

HIAD2.0 & HELLEN databases





# JRC activities foreseen in 2021

## Knowledge Management

MAWP finalisation / Historical analyses

Annual programme review

EMM maintenance/customisation

TIM improvements: less noise, new technologies, patents/safety analysis

Sustainability: LCA contribution, H2 transport sustainability analysis

## RCS

Support to the new RCS approach

Testing harmonisation high T electrolyzers

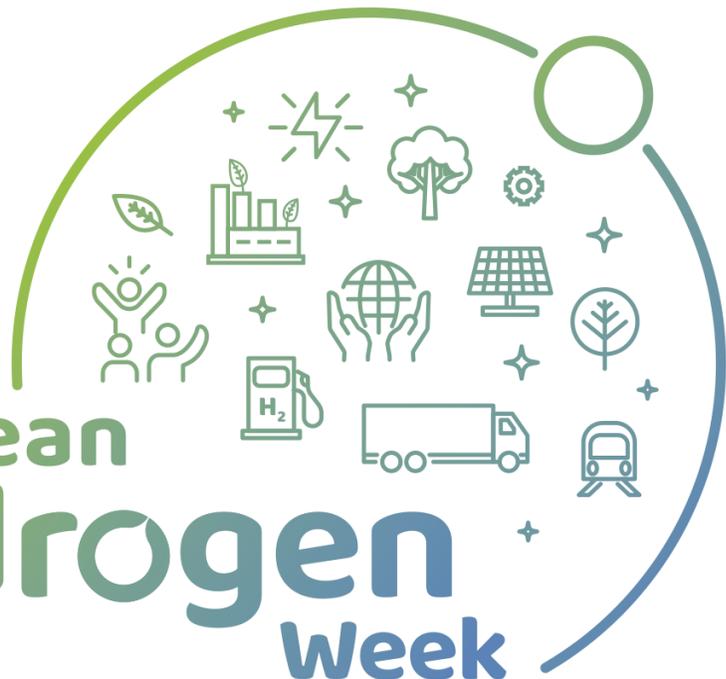
ZeroCell Project support

## Safety

Databases: upgrade & ownership change

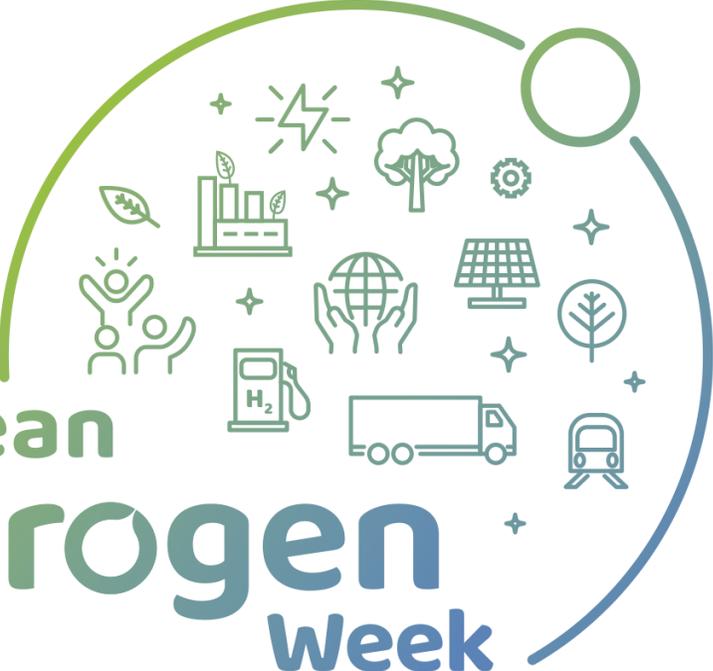
JRC involvement in EHSP phased out

# European Hydrogen Week



#CleanHydrogen  
#EUHydrogenForum





European  
**Hydrogen**  
Week

#CleanHydrogen  
#EUHydrogenForum

