

The eegi and storage mapping

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Barcelona

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Agenda

- The European Electricity Grids Initiative and Grid+
- A storage mapping exercise
- Results per country
- Overall results

Eegi and Grid+



Eegi and Grid+

- Goal:
 - Accelerating innovation and development of the SG
- Strategic objectives:
 - 35% of electricity from **renewable sources** by 2020
 - A completely **decarbonized** electricity production by 2050
 - A truly **pan-European network**
 - **Active demand**
 - To **anticipate** new developments
 - **Economically efficient** deployment of SG

Eegi and Grid +

- To implement and support the management, planning and networking process of the EEGI over the years 2012-2014, both within and beyond the European borders
- To enhance the delivery by the European network operators of the new knowledge needed to deploy Smart Grid solutions in the most effective way possible in EU27.



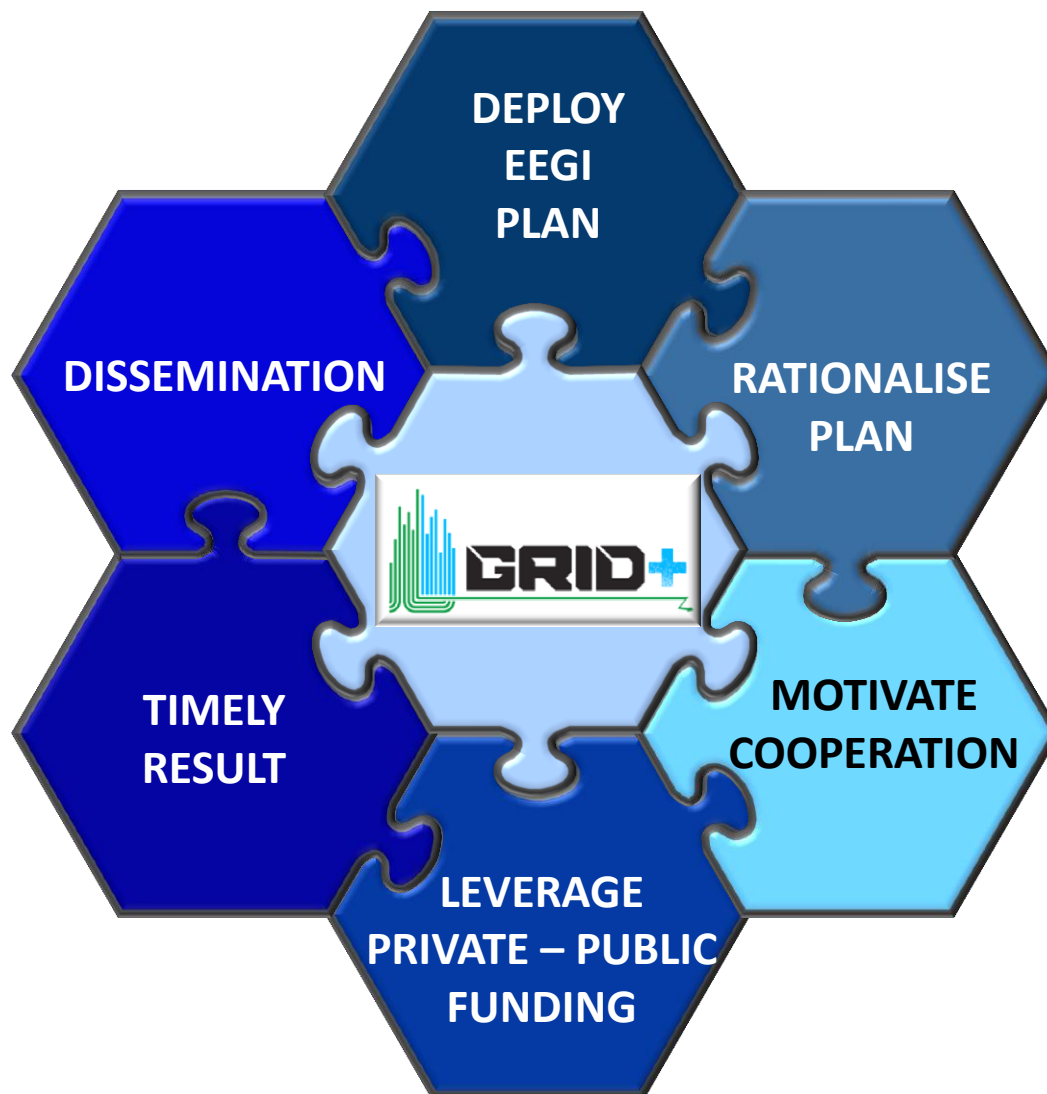
MAKE IT
RATIONAL

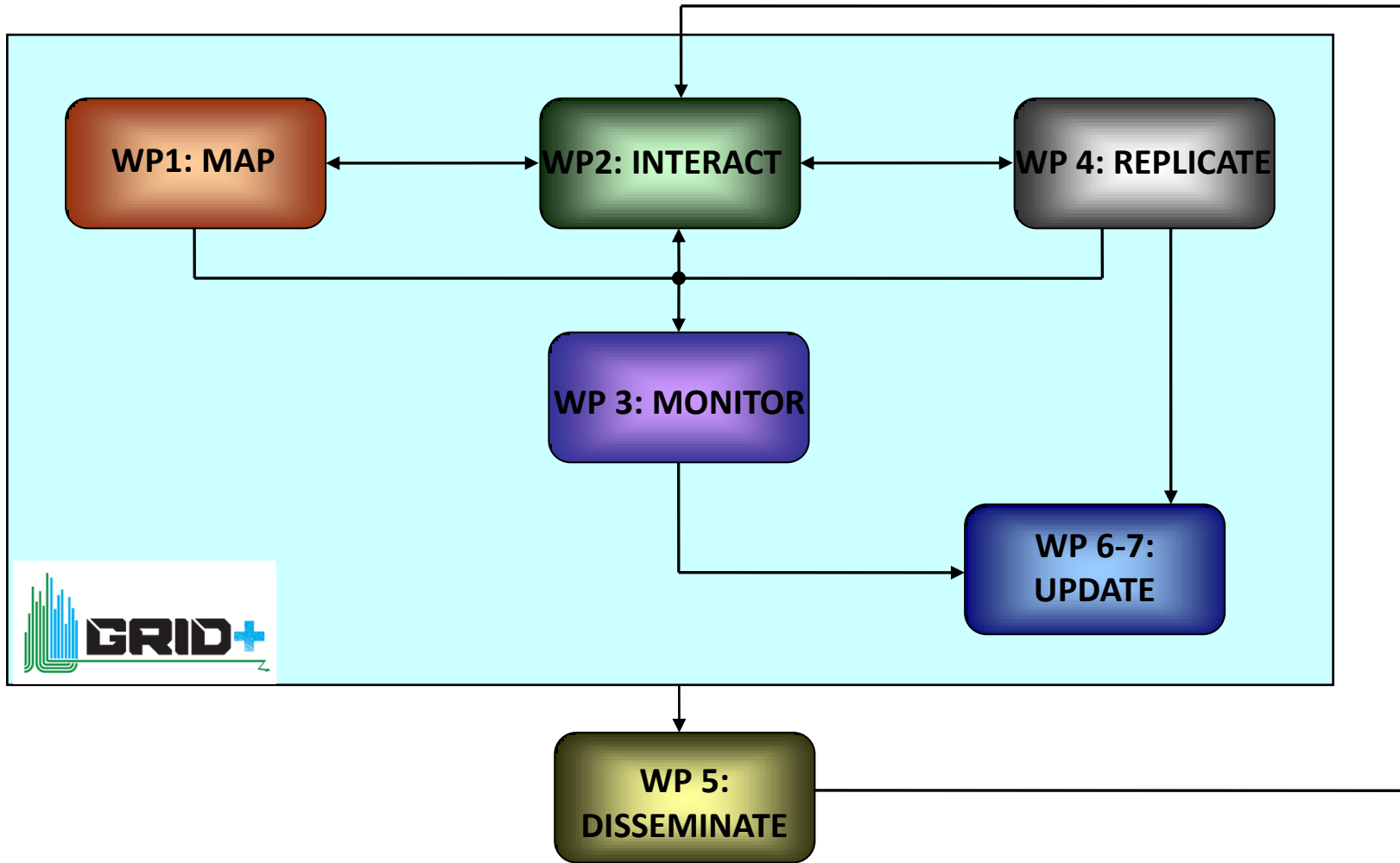
MAKE IT
FEASIBLE

MAKE IT
HAPPEN

MAKE IT
VISIBLE

The keys to success





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A storage mapping exercise

Active Demand Response Energy Efficiency from Integr. with Smart Homes Metering infrastructure SM data processing DSO integr. small DER Sys. integr. small DER Integr. storage in net mgt Infrastr. to host EV/PHEV Mon. and Control LV Net Autom. and Control MV Net Methods and System Support Integrated Com Solutions

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12
Components	Yellow	Yellow	Yellow	Orange	Orange	Orange	Red	Orange	Red	Red	Orange	Orange
Network	Green	Orange	Orange	Orange	Red	Yellow	Red	Red	Orange	Orange	Orange	Orange
Market/Business Models	Red	Red	Yellow	Red	Red	Orange	Red	Orange	Orange	Red	Red	Red
Customer Acceptance	Orange	Orange	Orange	Orange	Orange	Green	Red	Orange	Green	Green	Green	Green
Framework	Red	Orange	Red	Red	Red	Orange	Red	Orange	Red	Red	Red	Red

- 'Storage' main open issue in screening
- No systematic coverage at EU level
 - EtP, EII, JU, ...

A storage mapping exercise

- Starting points
 - Mapping, not roadmapping
 - National and European projects
 - Research, development and demo
 - Involvement of member states

A storage mapping exercise



- . Grid connected storage
- . Physical or virtual outflow of electricity
Reduced electricity consumption because of other E
- . Examples: All of the previous, power-to-gas, forms of electric heating
Heat pumps, cooling/freezing flex, electric boilers

A storage mapping exercise

- Main parameters for mapping
 - Type of technology
 - Level of connection to the grid
 - Focus of the project
 - State of development
 - Source of funding

A storage mapping exercise

- Three groups of actors
 - Steering group EEGI team
 - Definition of scope
 - Designation of other actors
 - Progress monitoring
 - Expert group
 - Definition of priorities
 - Mapping of national/regional projects
 - Gap analysis against priorities

A storage mapping exercise

- Three groups of actors
 - Project team
 - Manage process
 - Gather background info
 - Process expert input and prepare conclusions

The mapping process

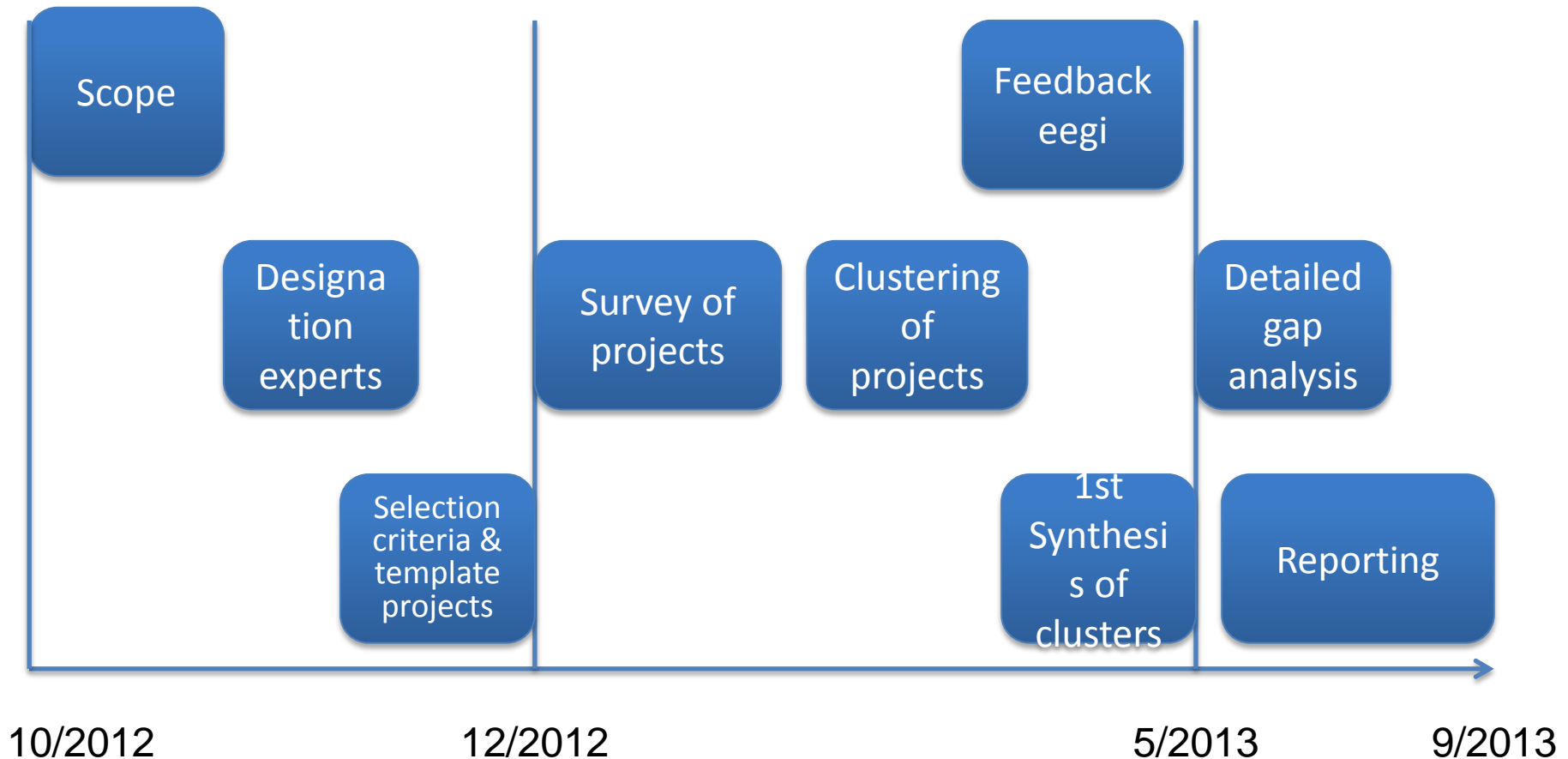
- First overview
- Surveying
- Clustering
- Thematic analysis

The mapping process

EEGI team

Workshop 1
Priorities

Workshop 2
Gap analysis

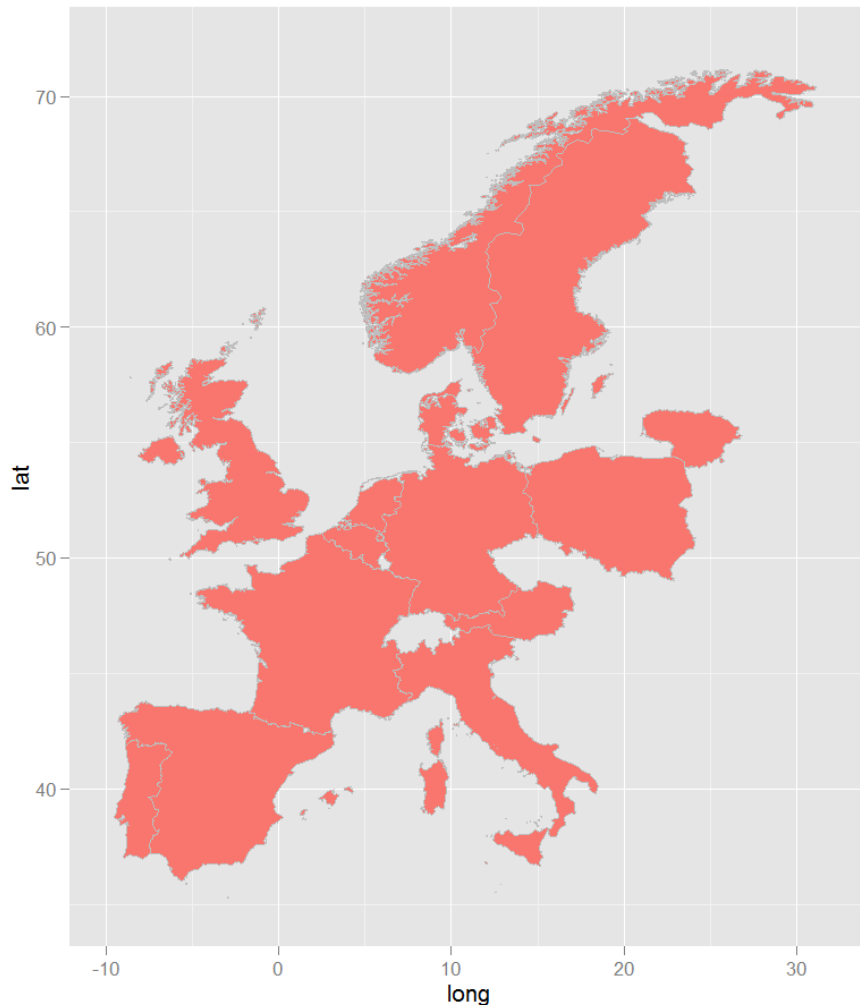


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Results per country

included  in the analysis



14 EU - countries covered
Almost all of Northern and
Western

Good coverage of Southern

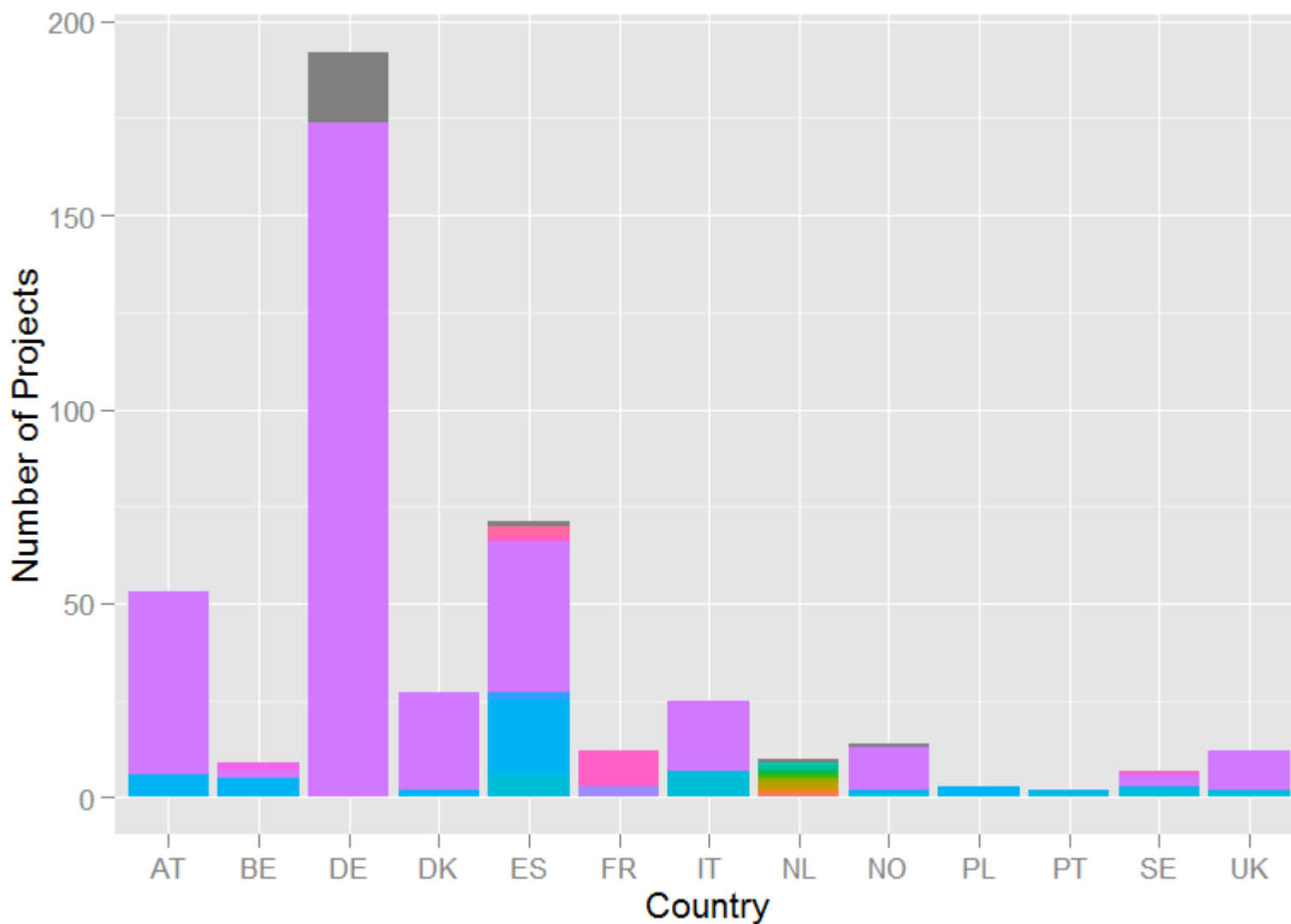
Limited Eastern

391 projects surveyed

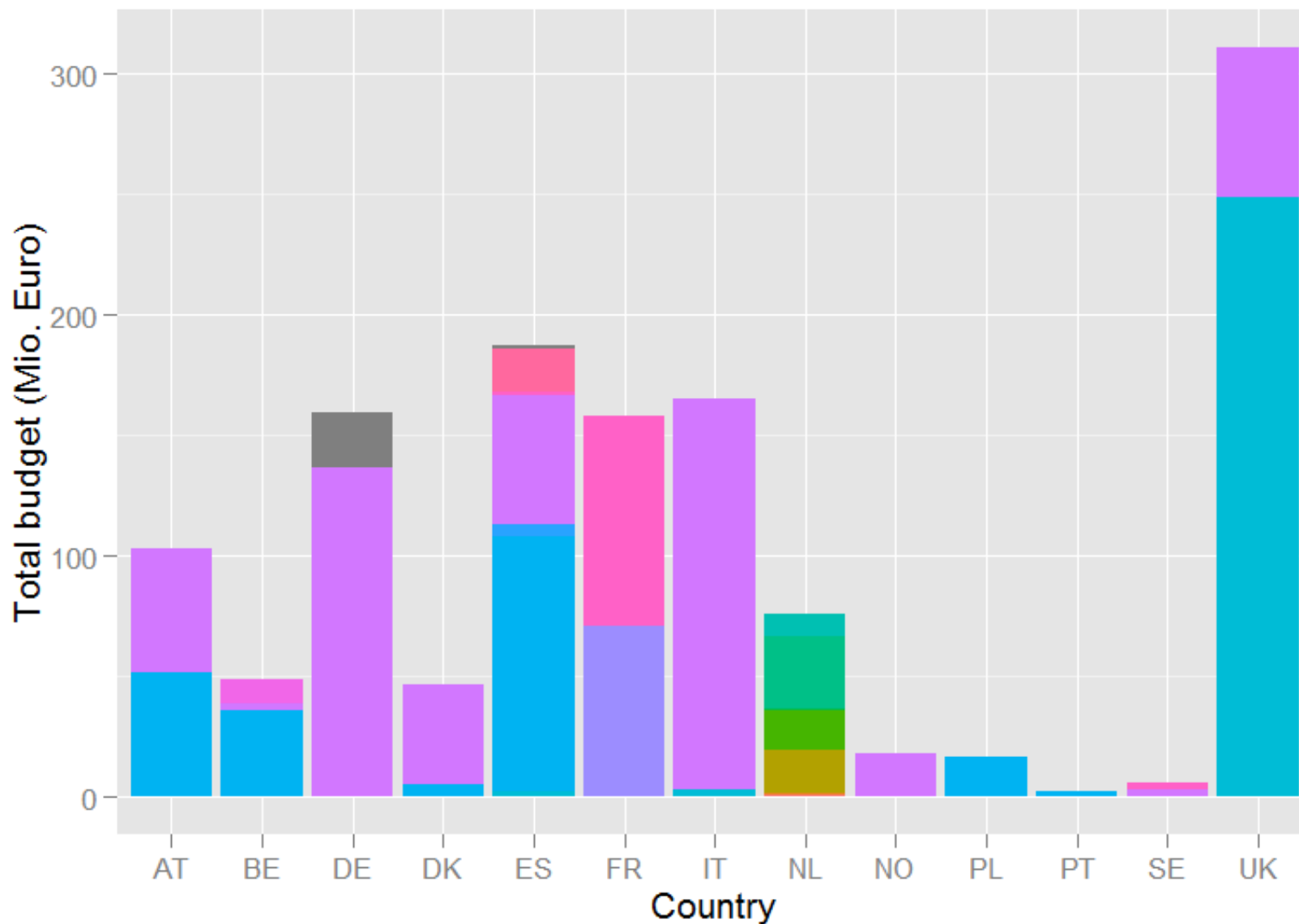
EUR 985,85 million in investment

433,11 million storage
specific

Results per country

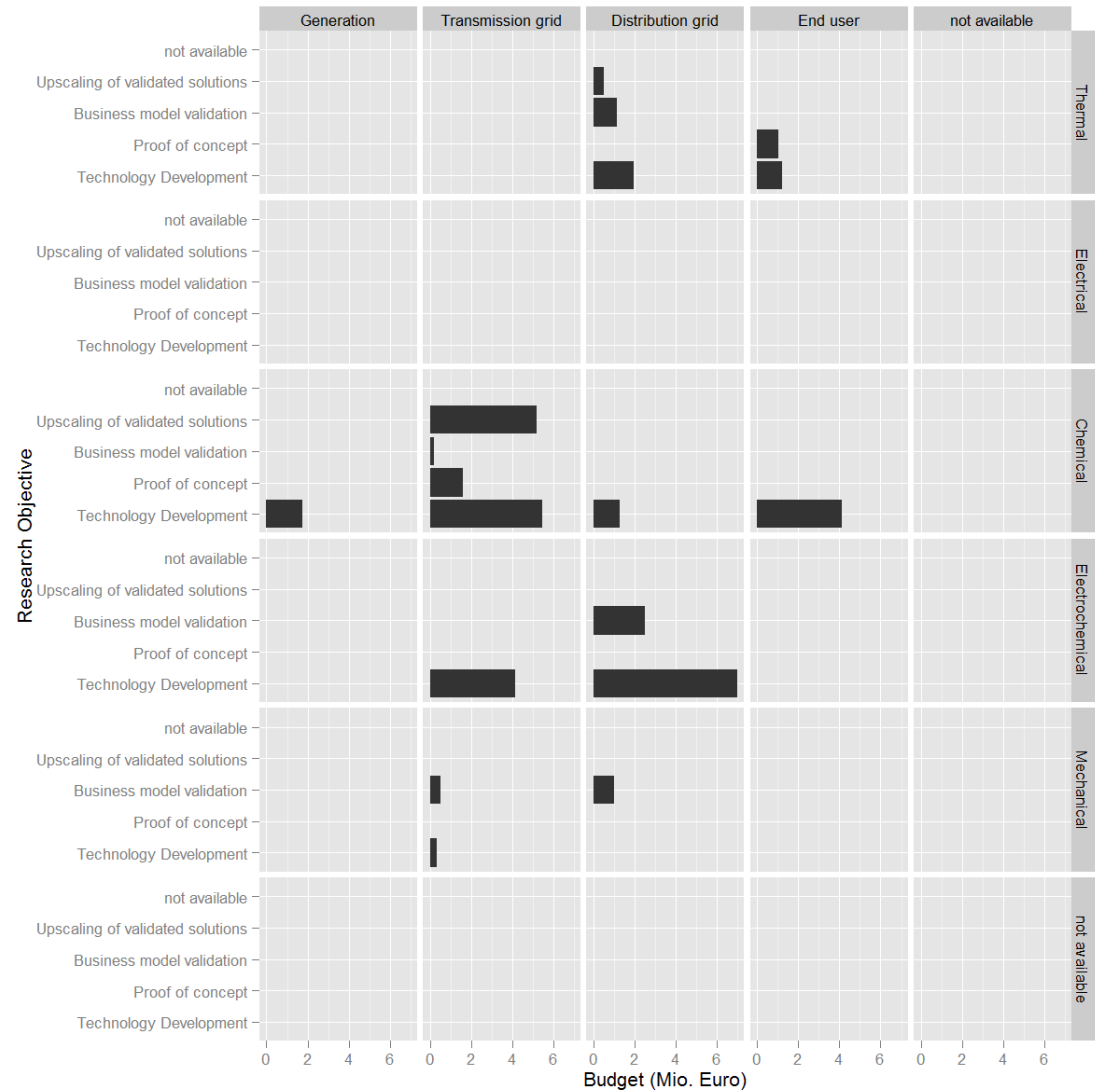


Results per country



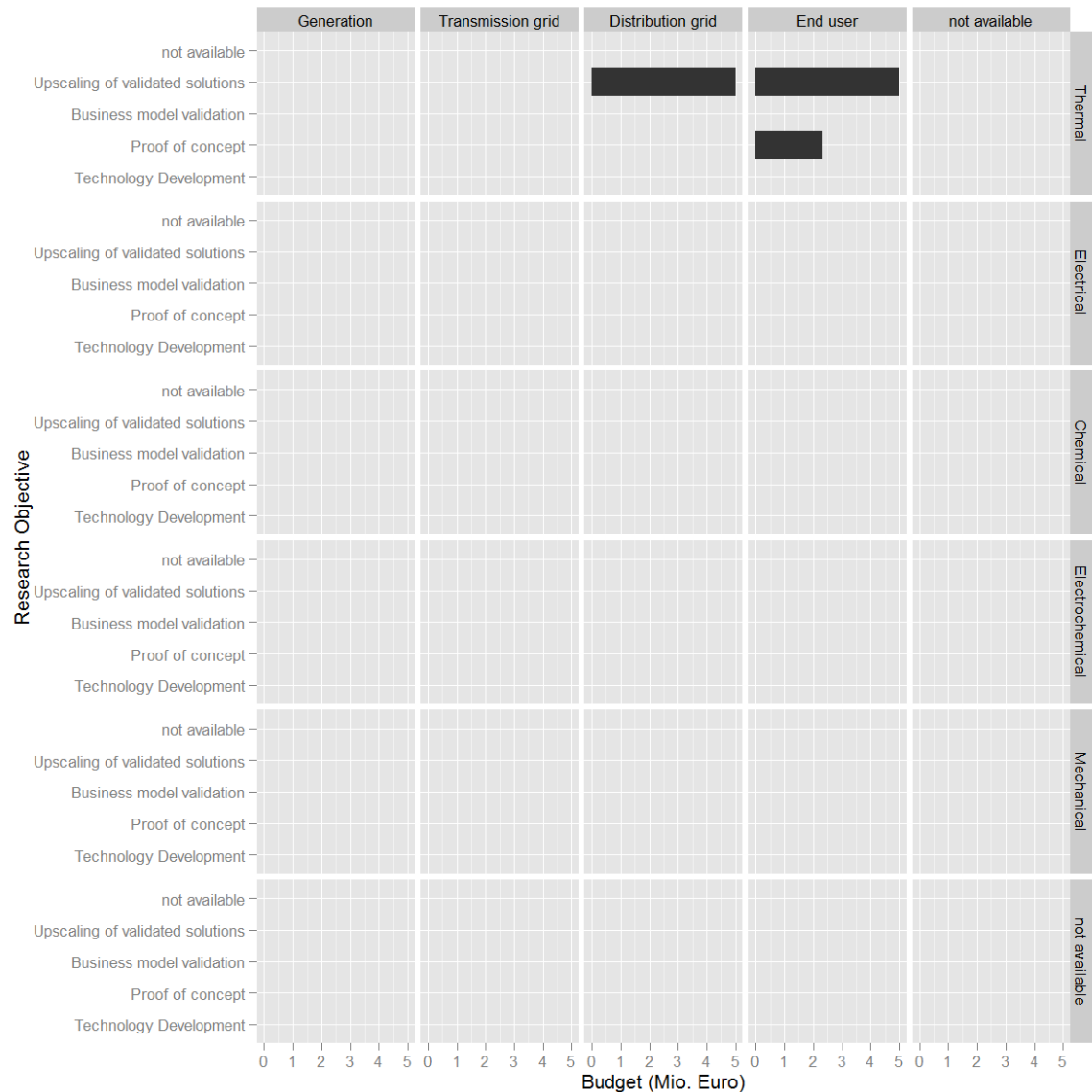
Results per country

- Austria
- 47 projects
- 51,26 (46,15)



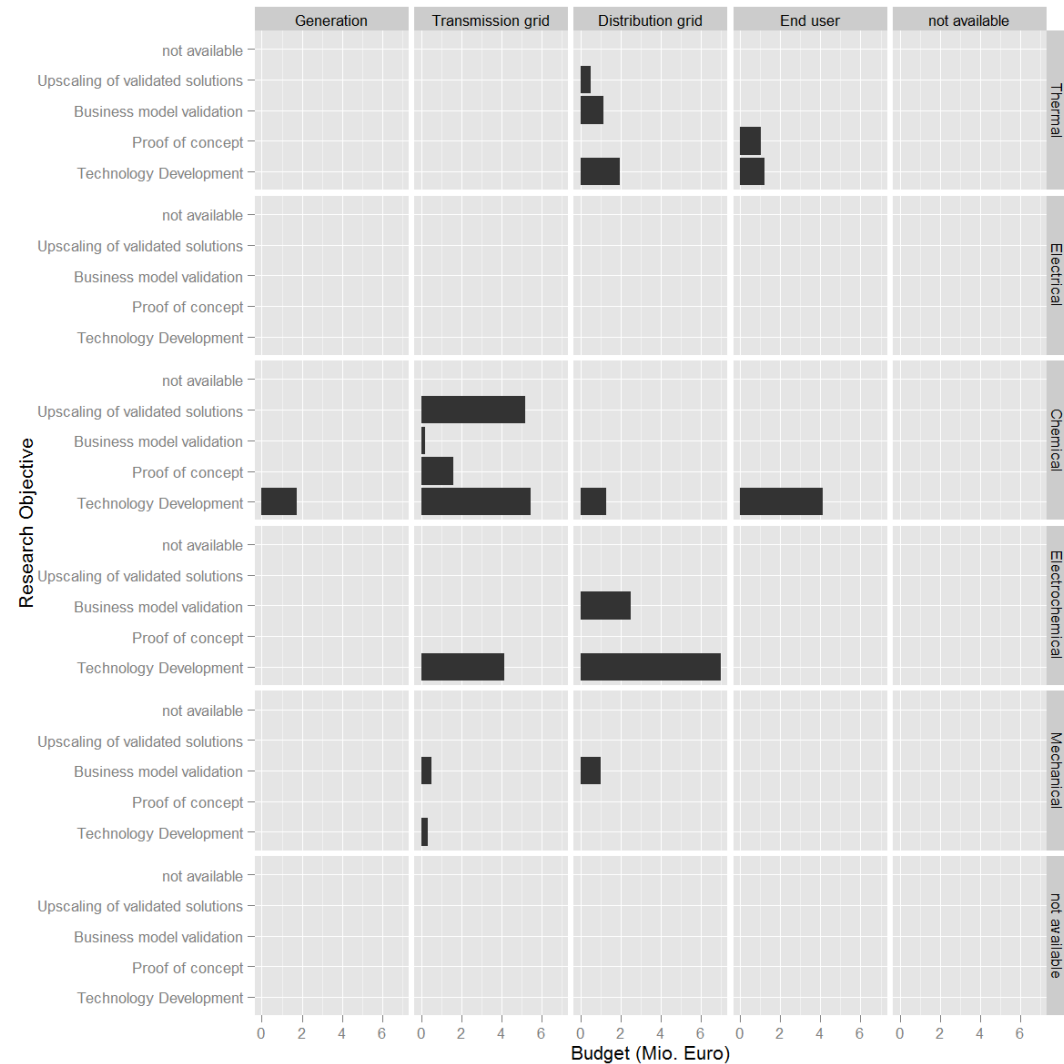
Results per country

- Belgium
- 4 projects
- 12,33 (3,07)



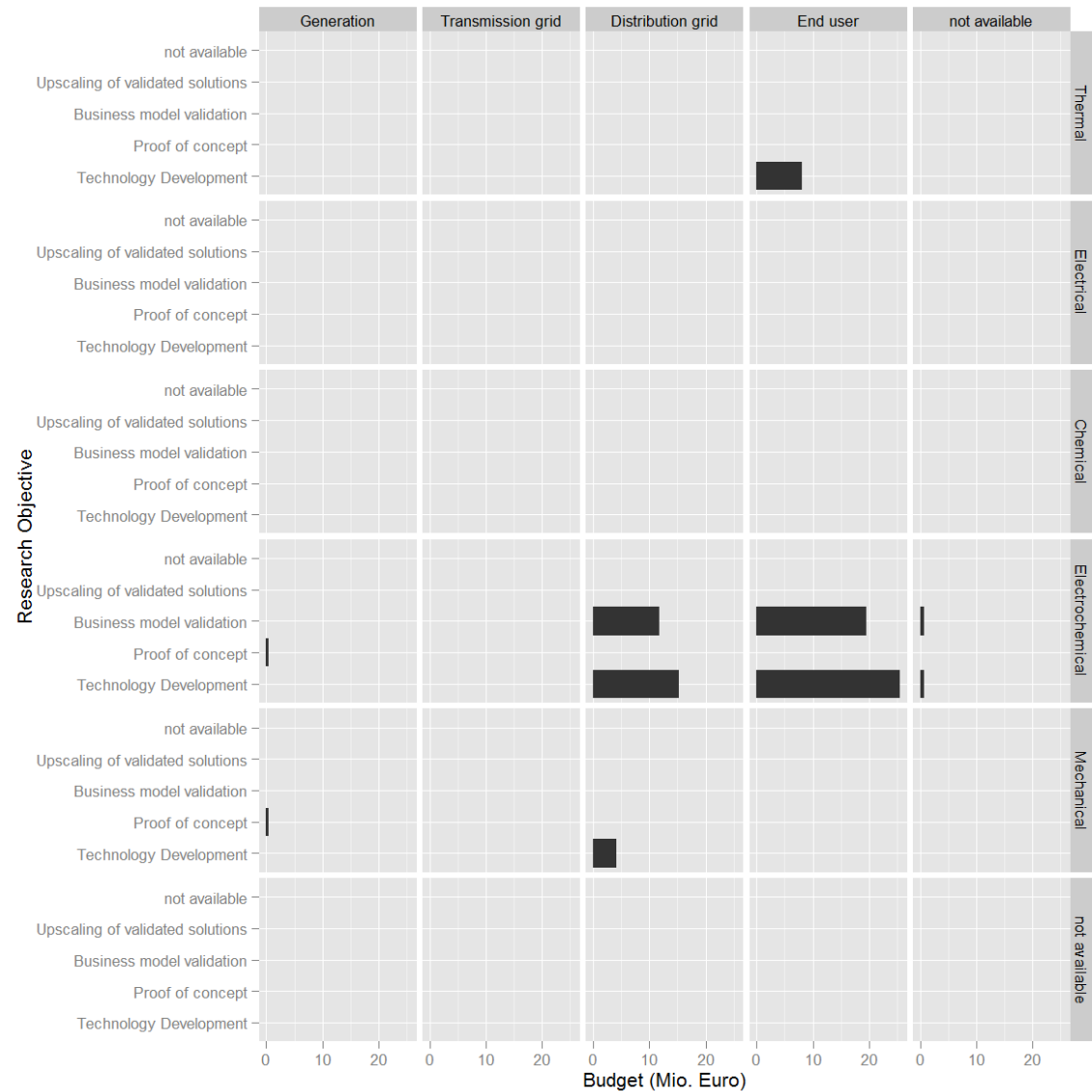
Results per country

- Denmark
- 25 projects
- 40,86 (32,12)



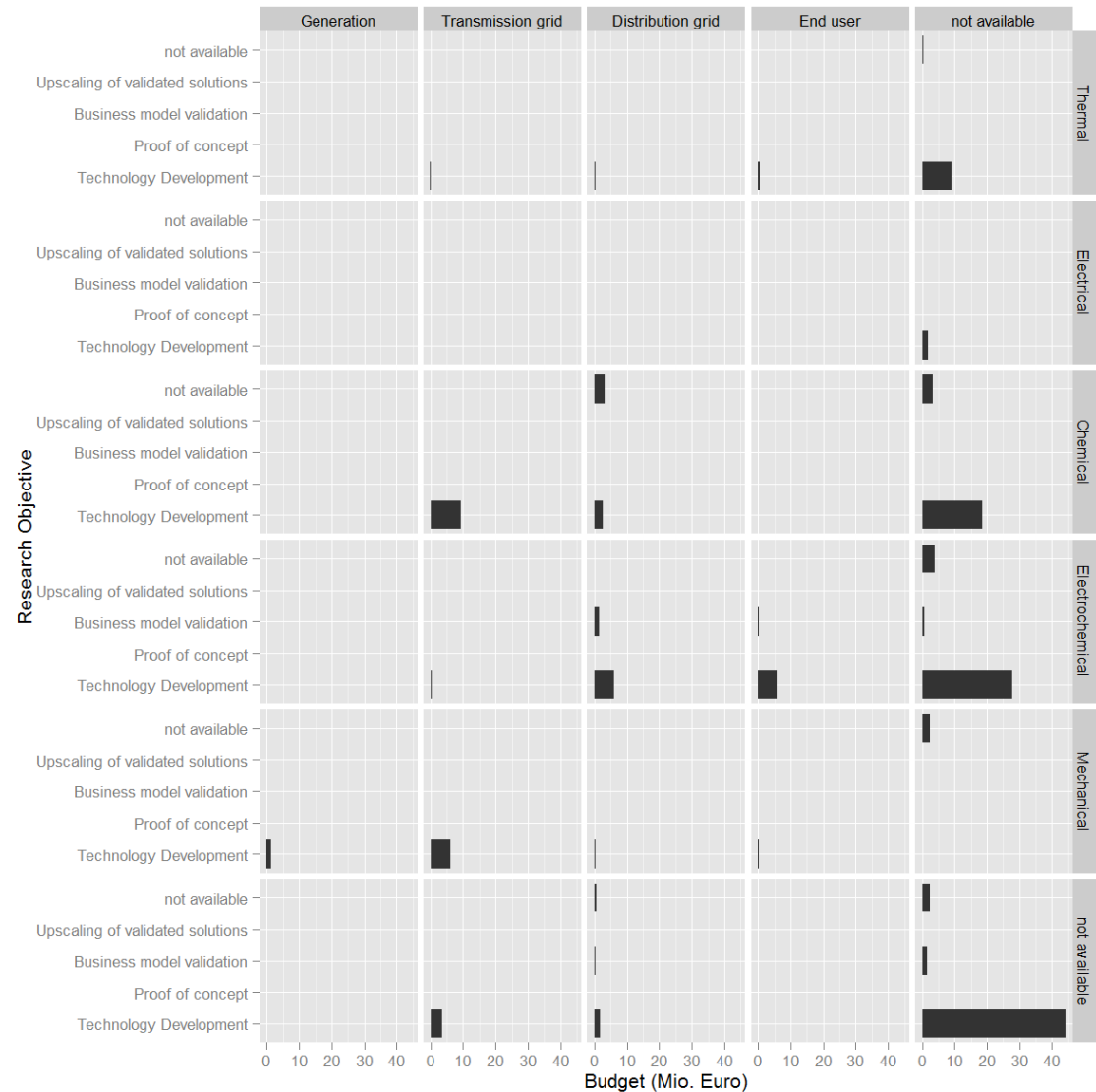
Results per country

- France
- 9 projects
- 86,7 (30,87)



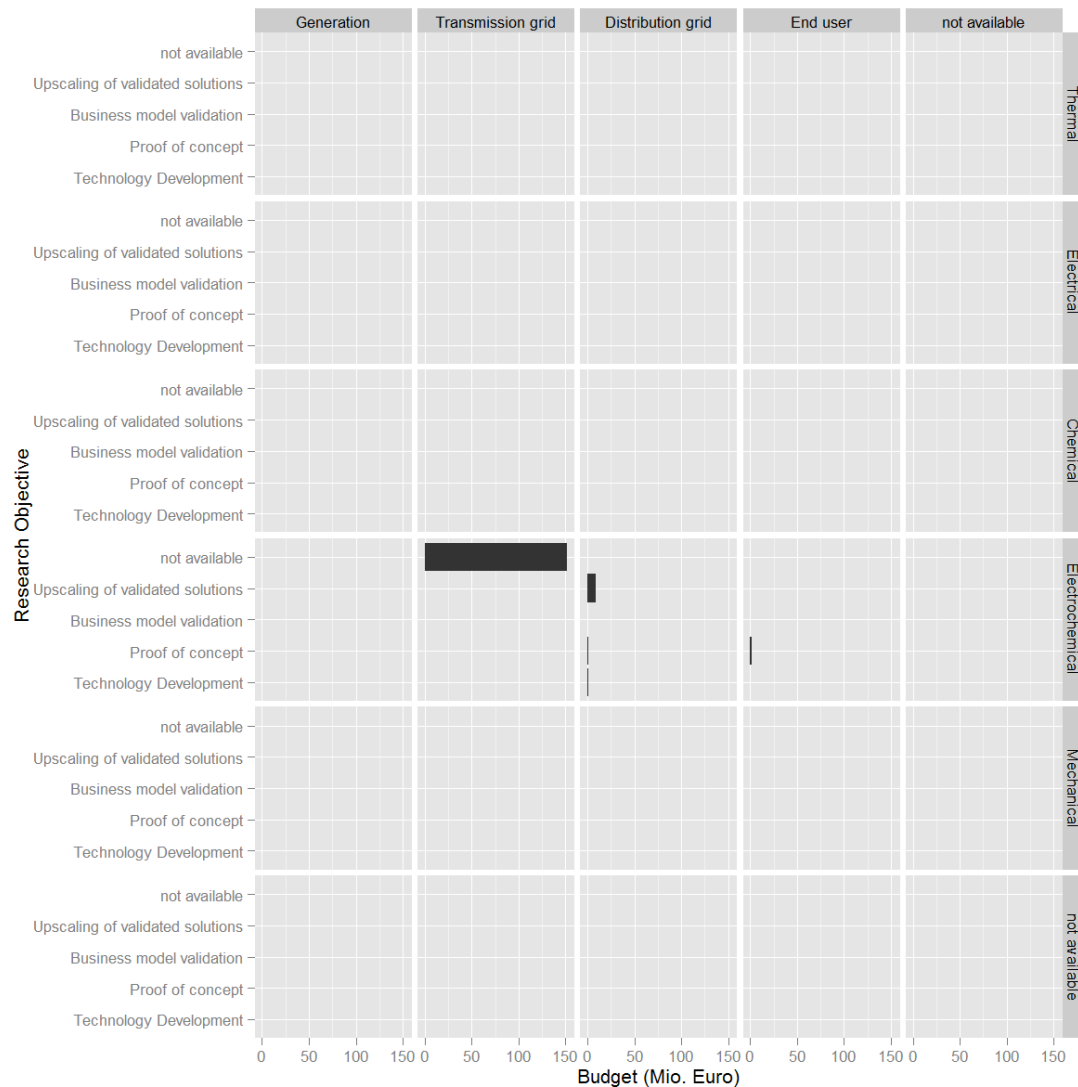
Results per country

- Germany
- 192 projects
- 159,29 (41)



Results per country

- Italy
- 25 projects
- 165,4
(105,69)

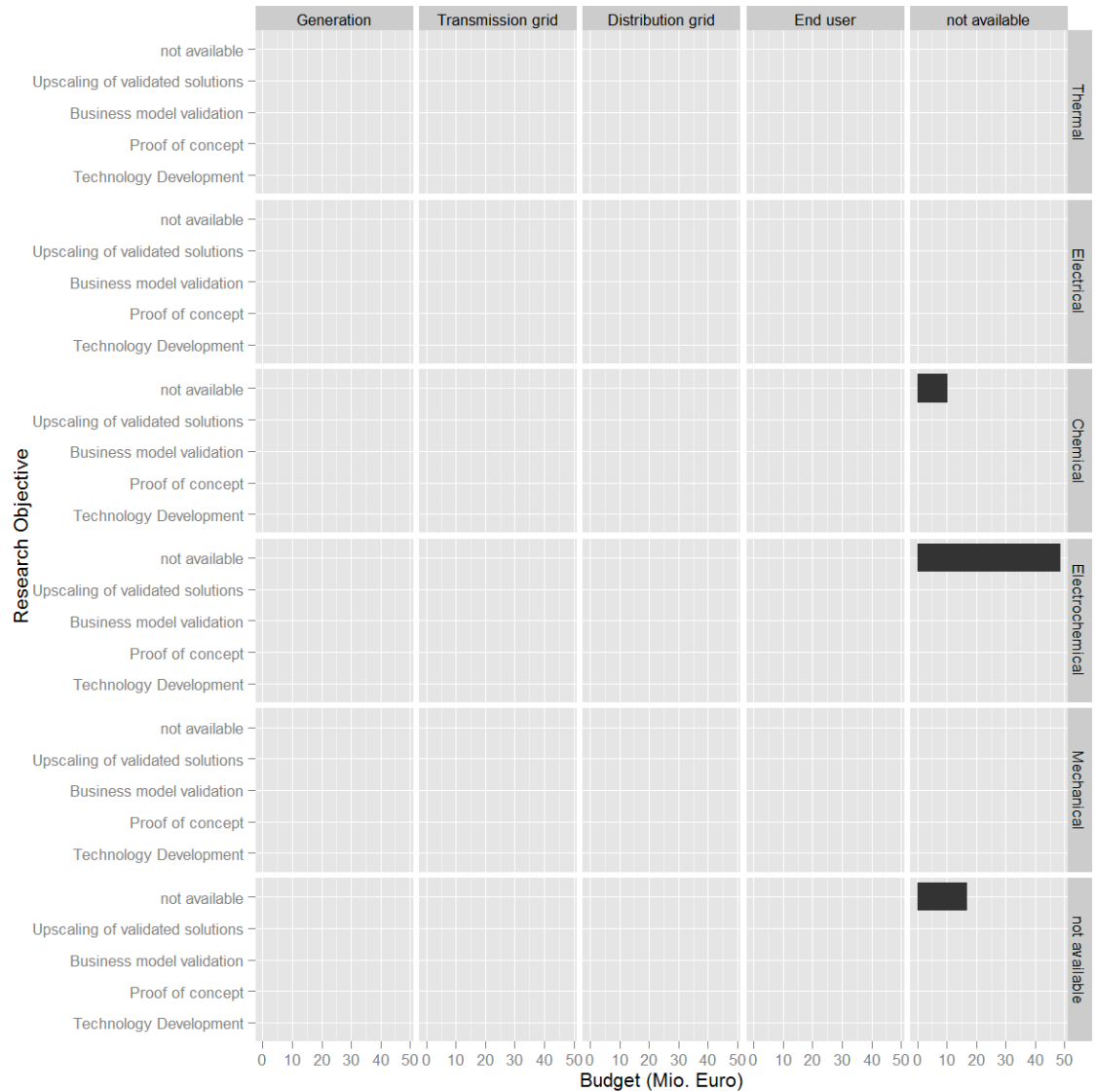


Results per country

- Lithuania
 - No activities on energy storage development

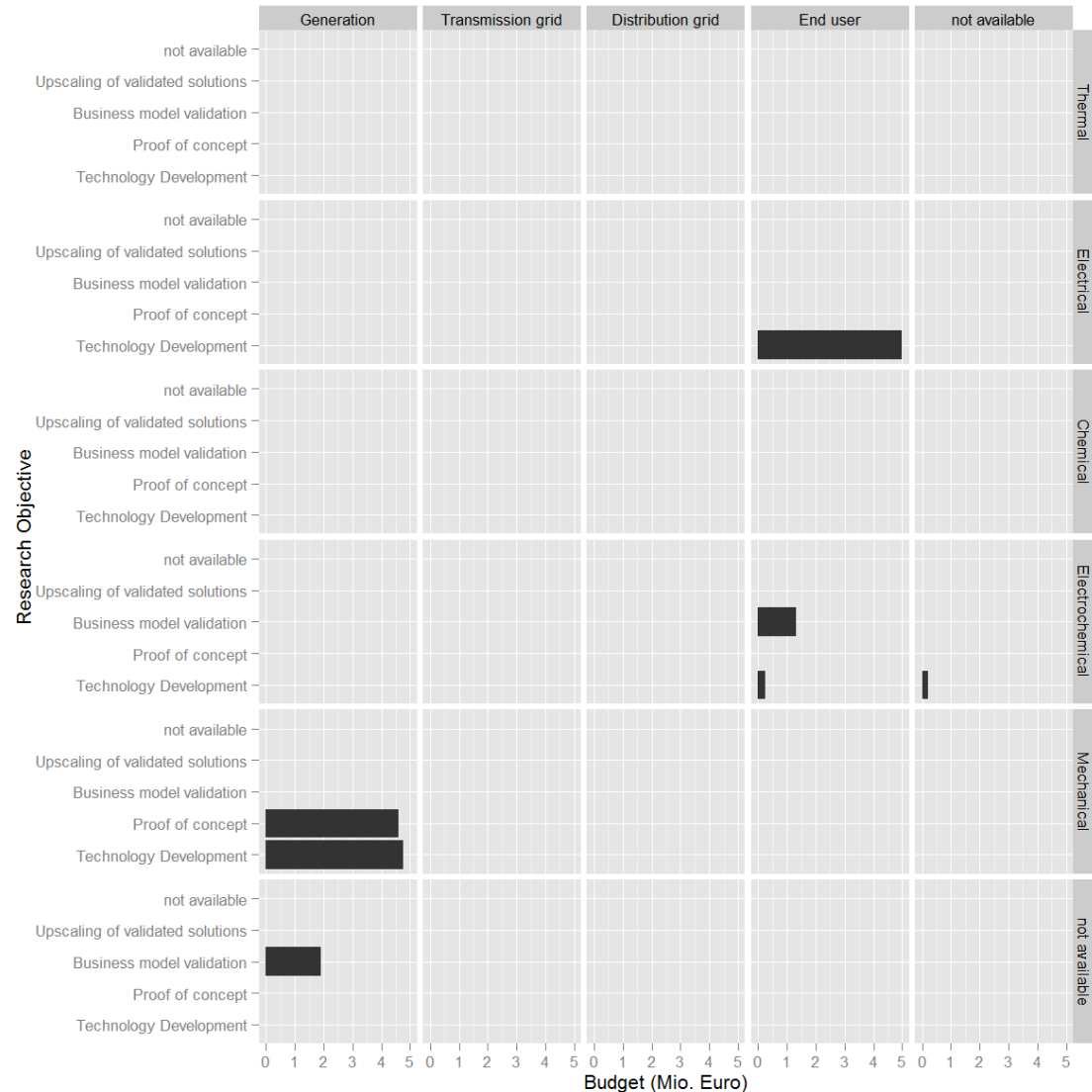
Results per country

- Netherlands
- 10 projects
- 75,9 (26,50)



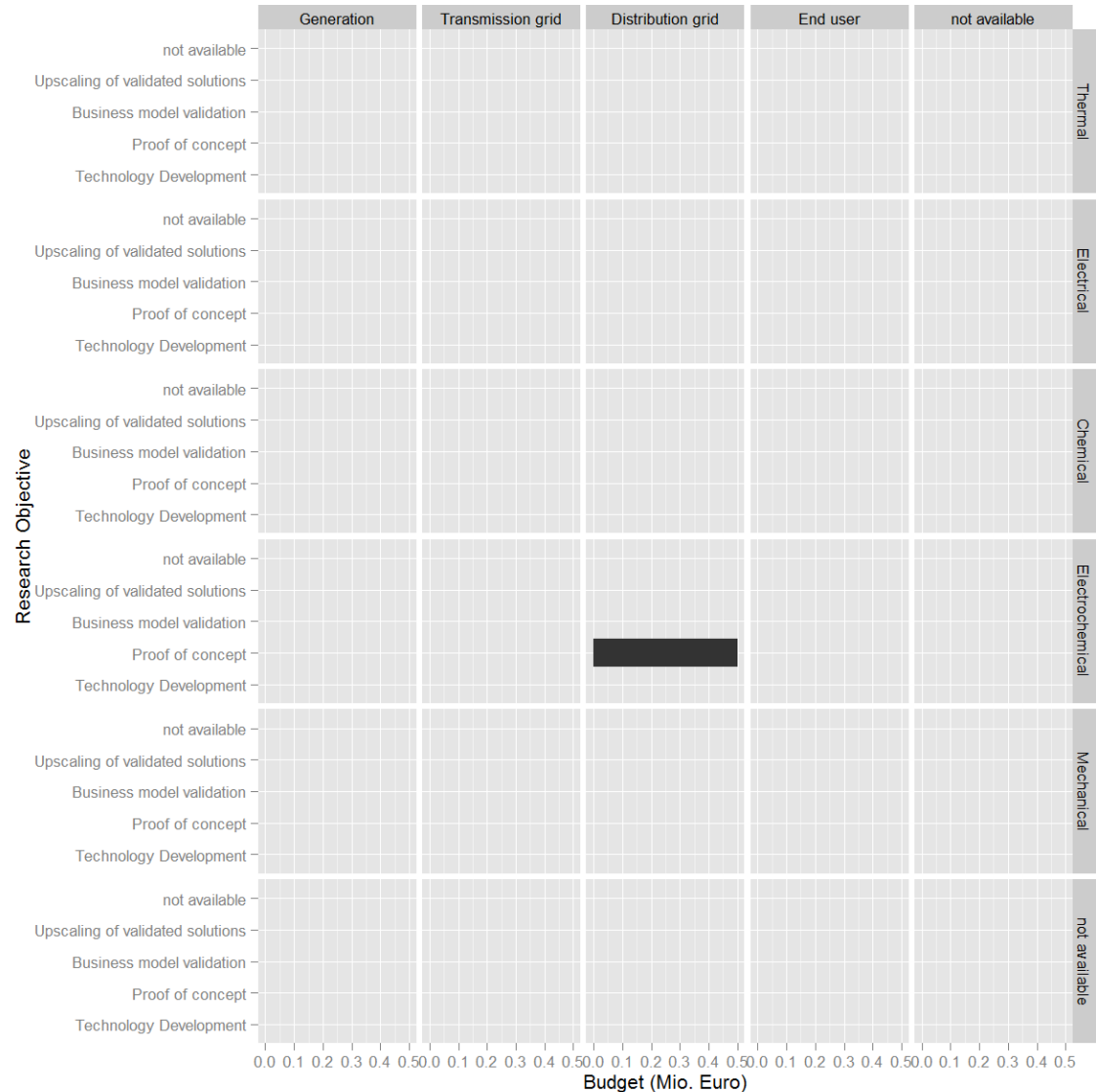
Results per country

- Norway
- 13 projects
- 18 (3,79)



Results per country

- Portugal
- 1 project
- 0,5 (0,5)

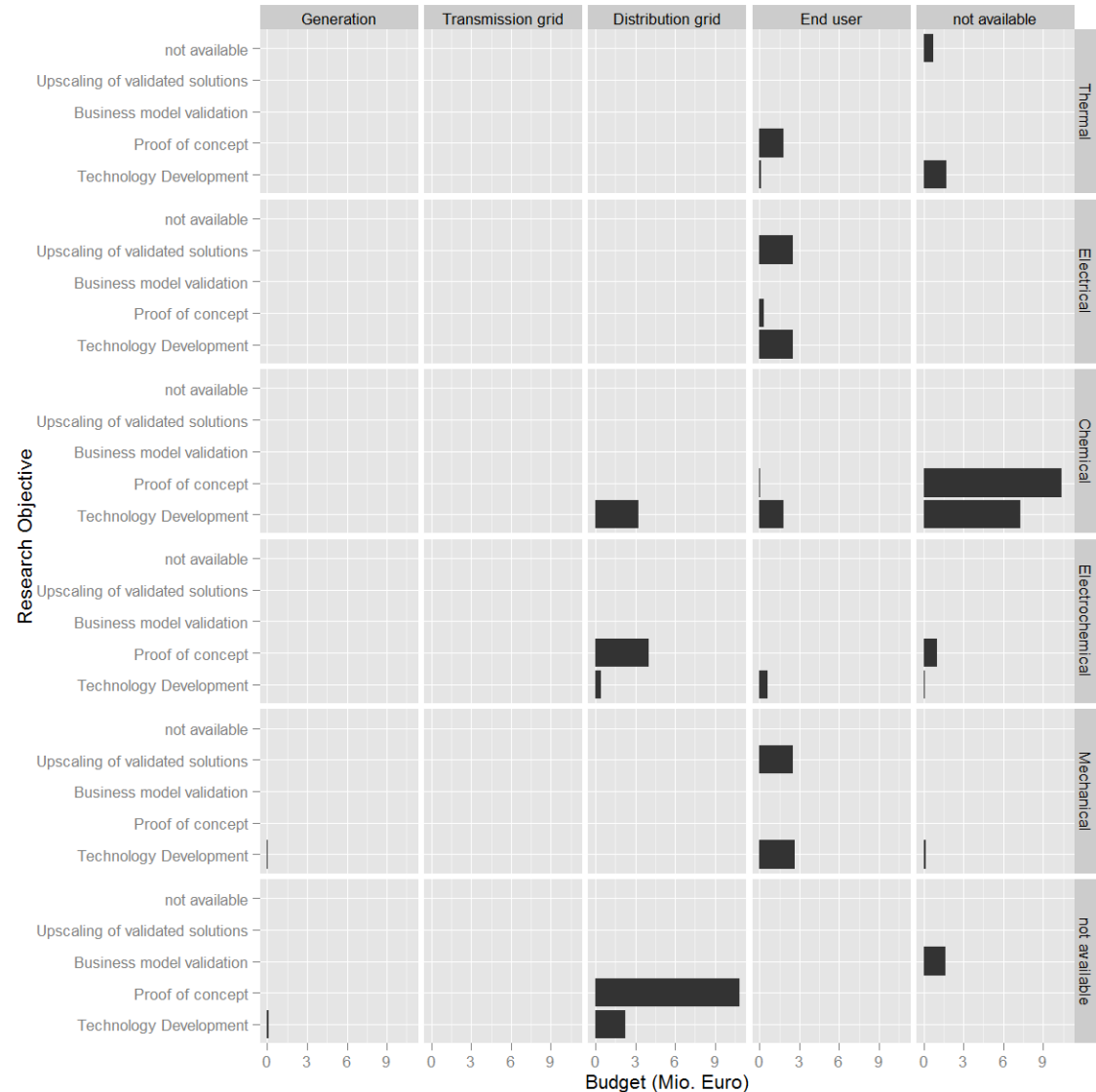


Results per country

- Poland
- No national projects
- EC funded: 16,5

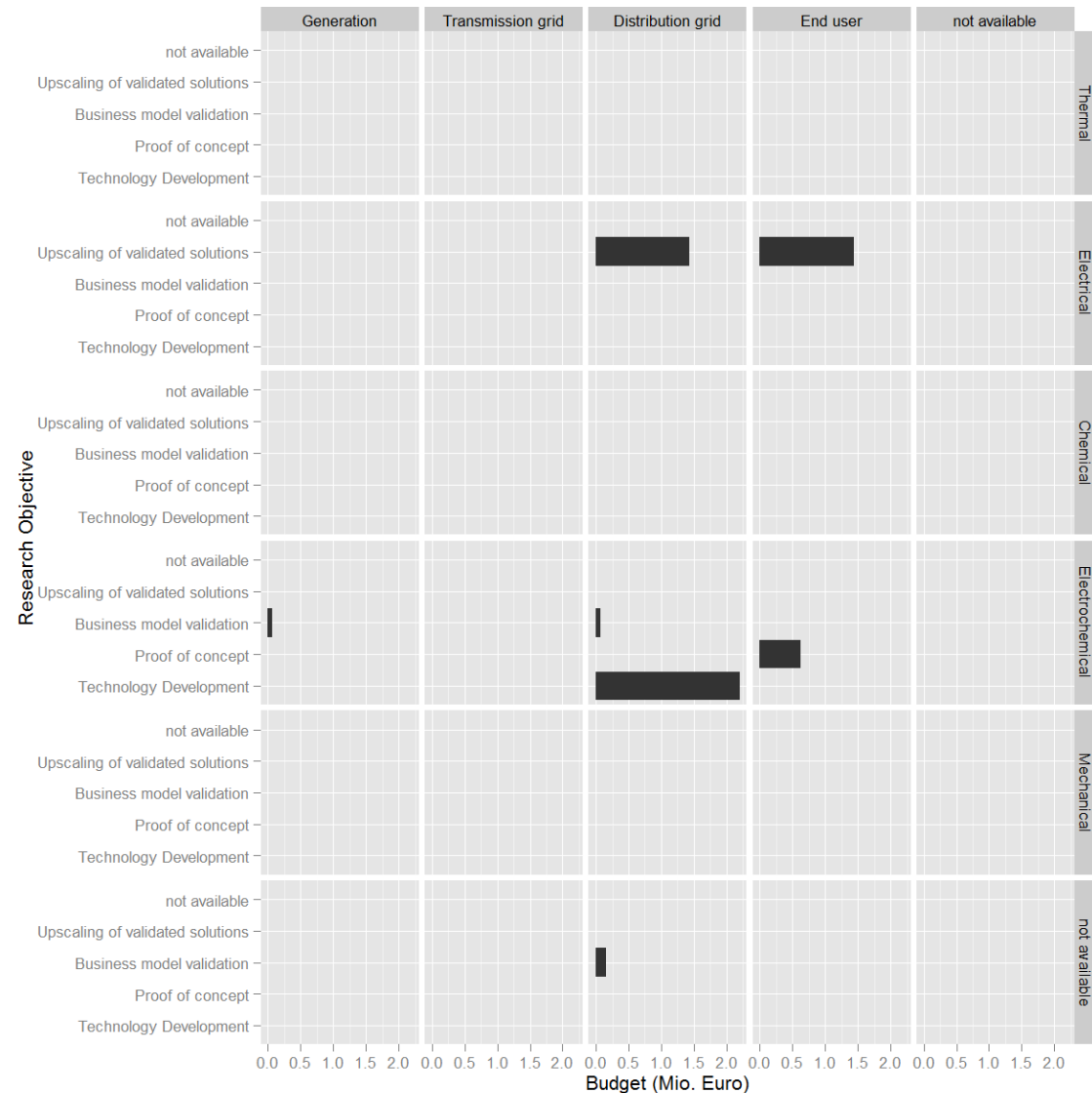
Results per country

- Spain
- 47 projects
- 58,8 (40,09)



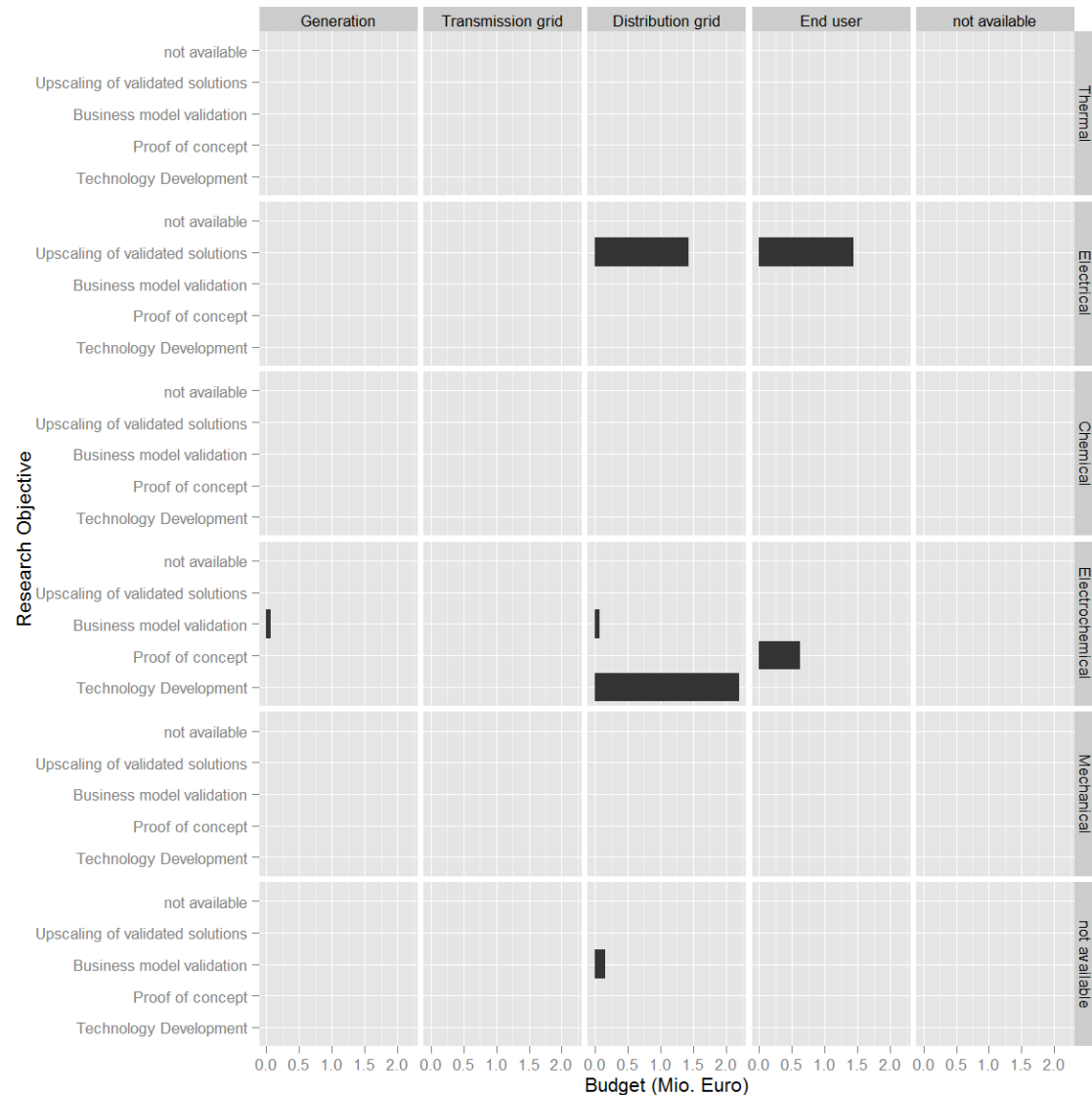
Results per country

- Sweden
- 6 projects
- 5,98 (1,21)



Results per country

- UK
- 12 projects
- 310,83
(102,22)



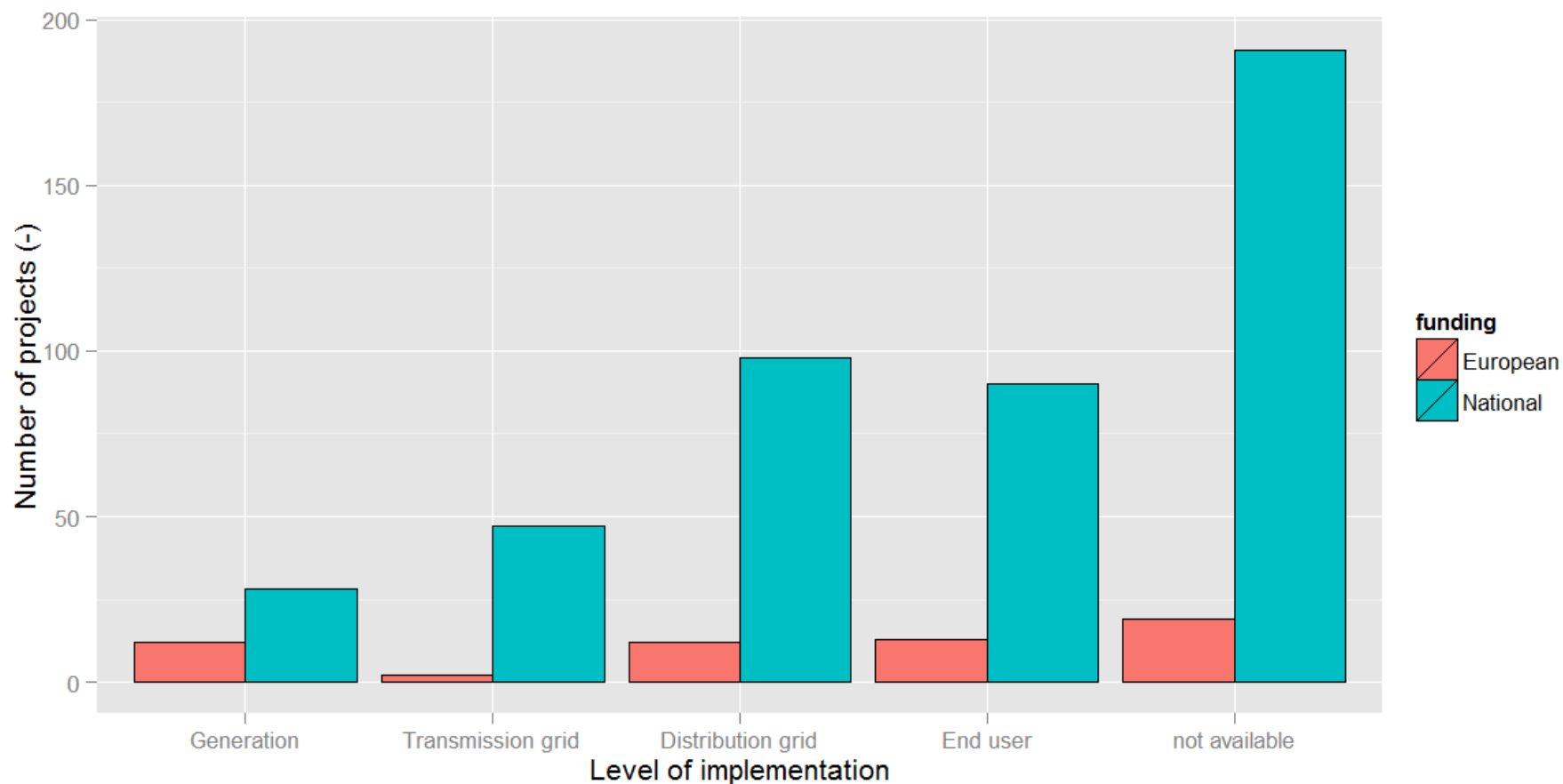
Results per country

- Regional specializations
- Influence of grid tariffs
- Pace of development

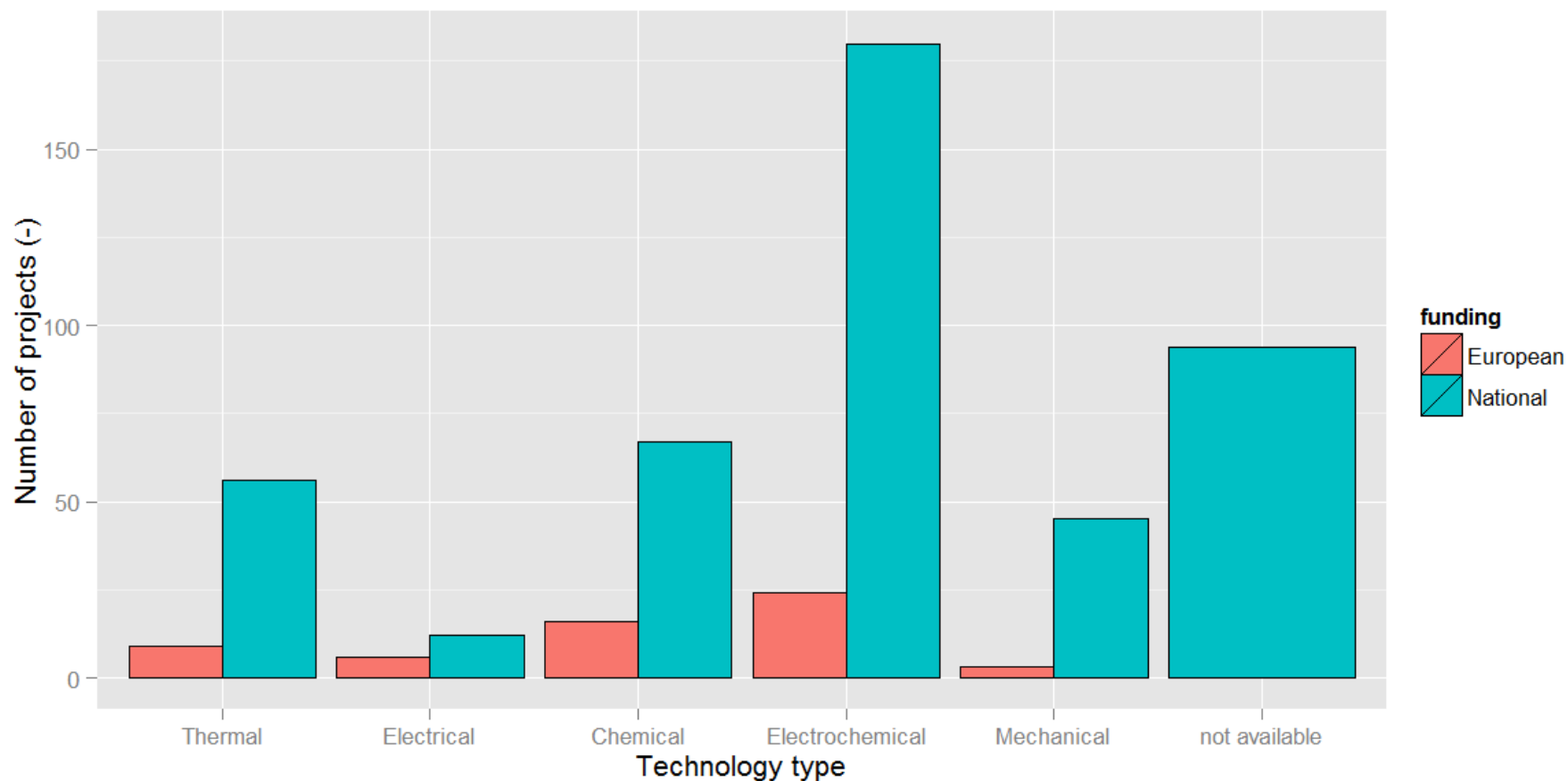
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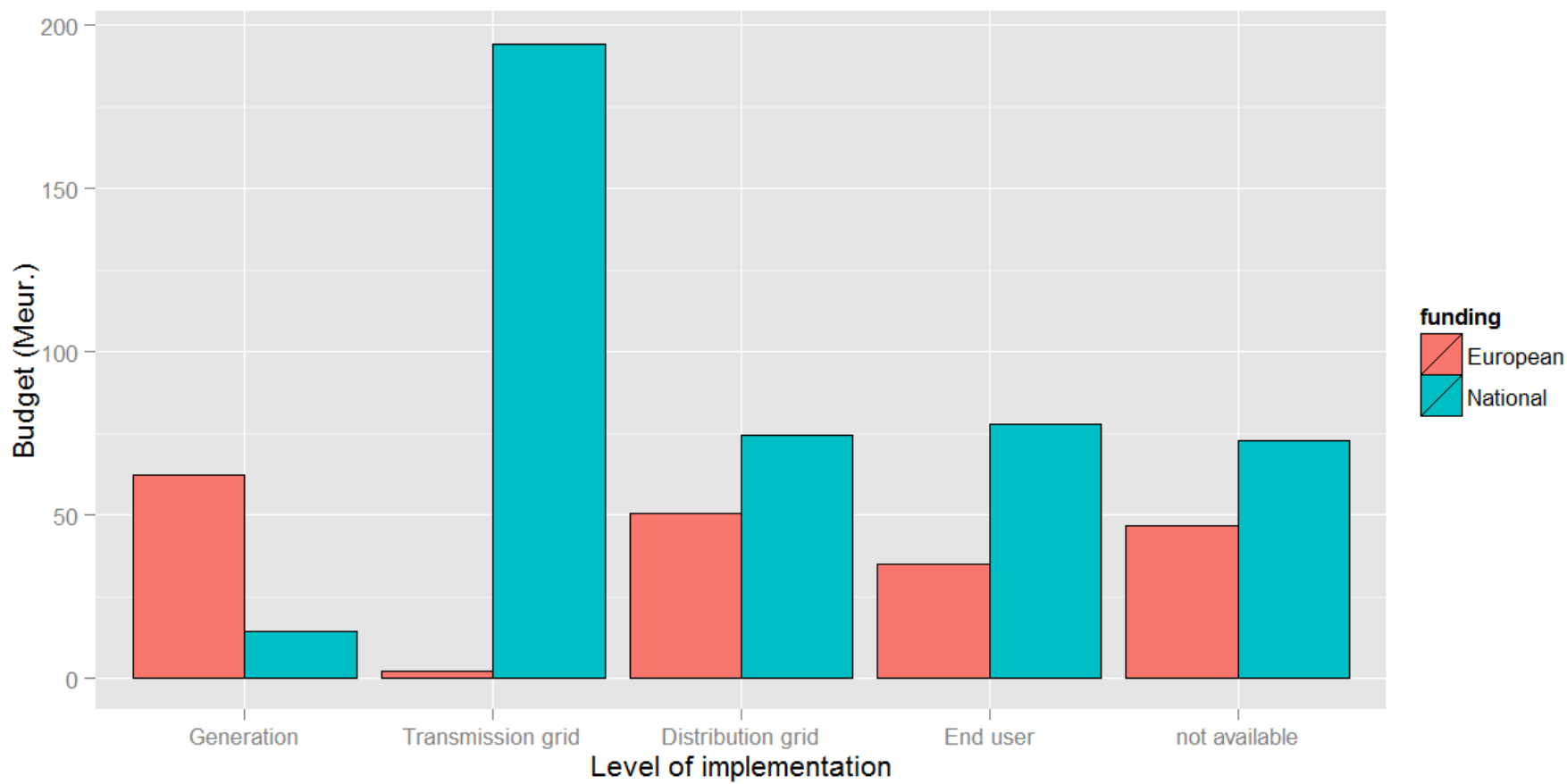
Overall mapping



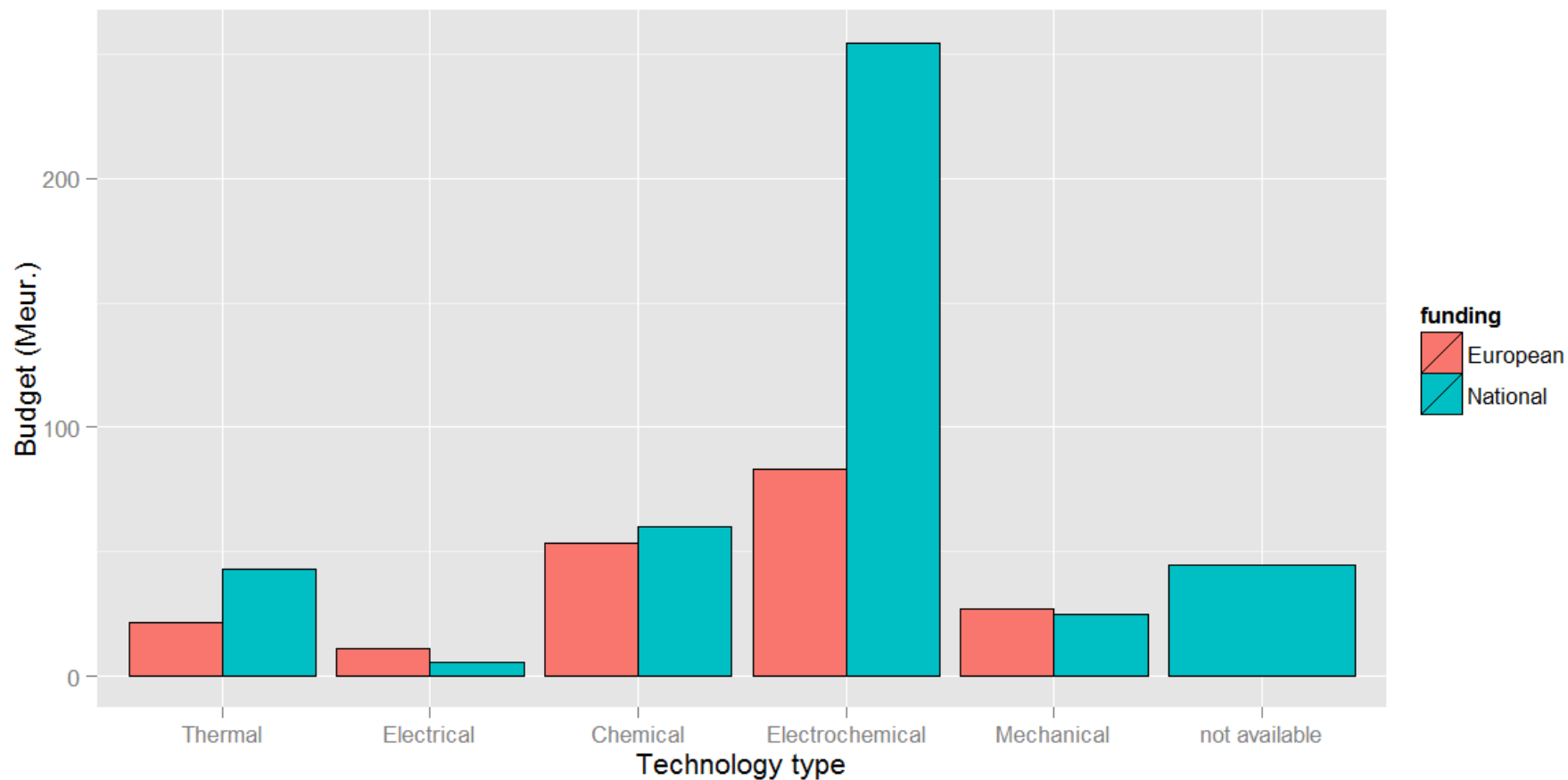
Overall mapping



Overall mapping

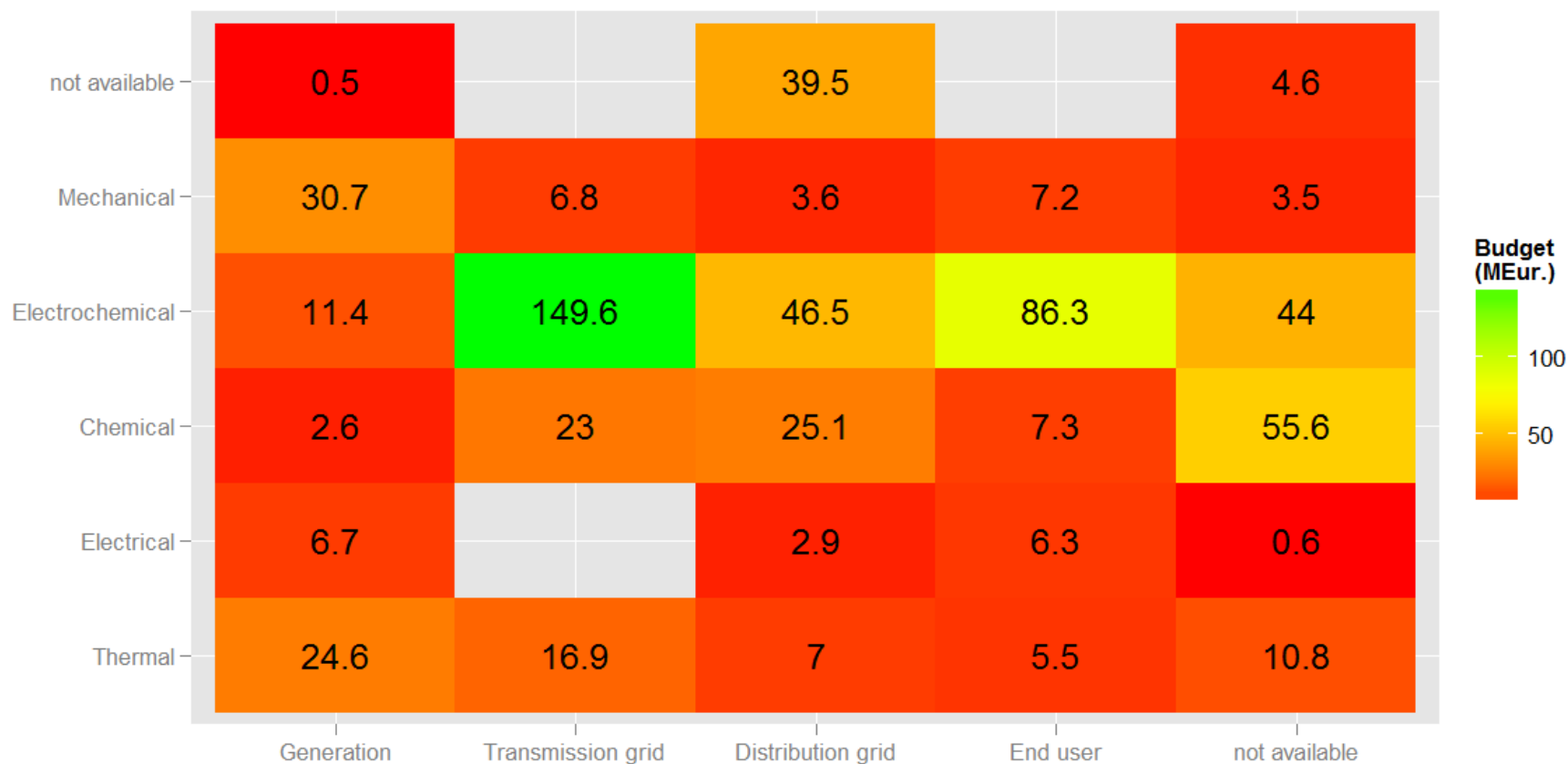


Overall mapping



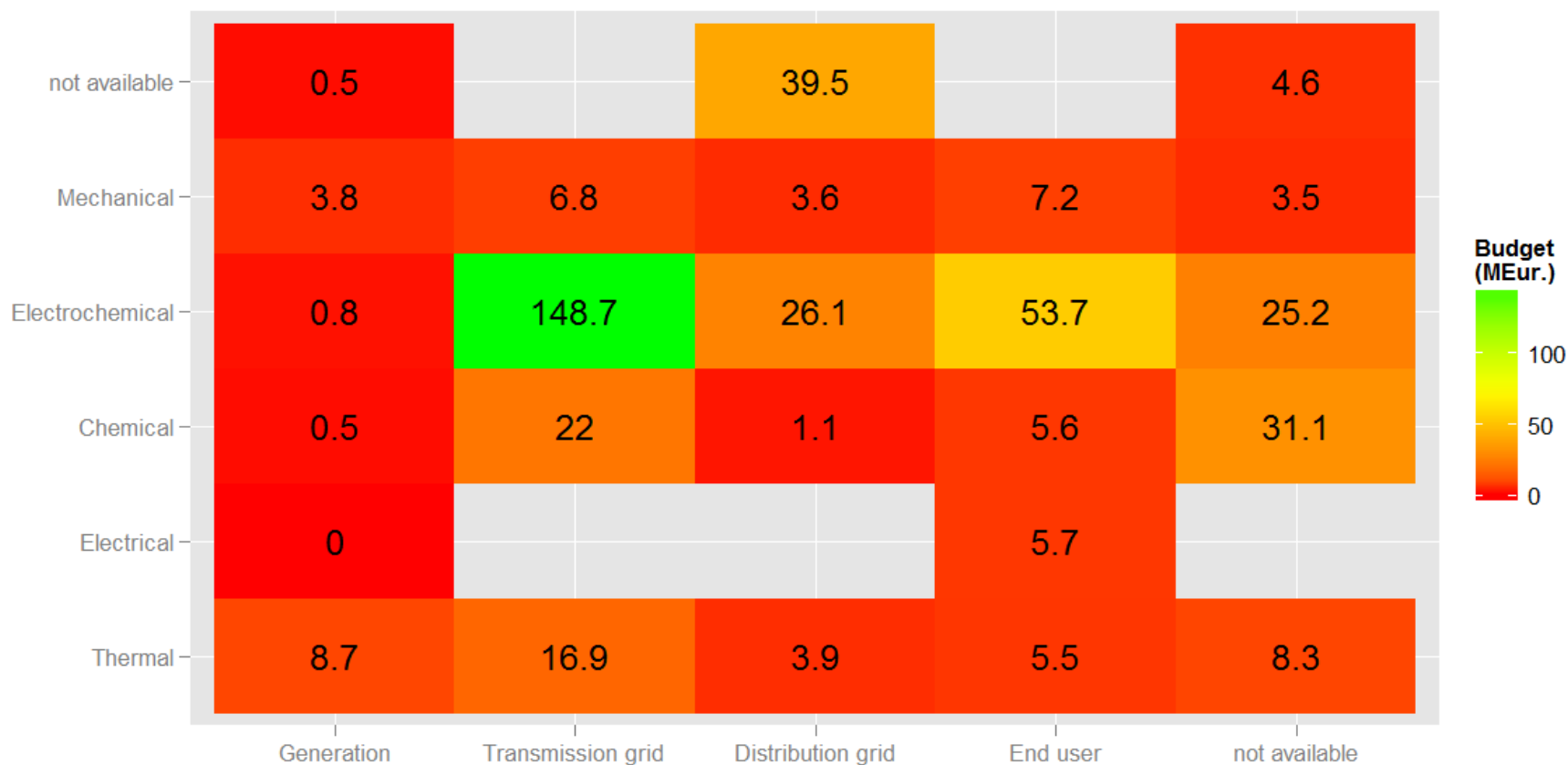
Overall mapping

Budget, total



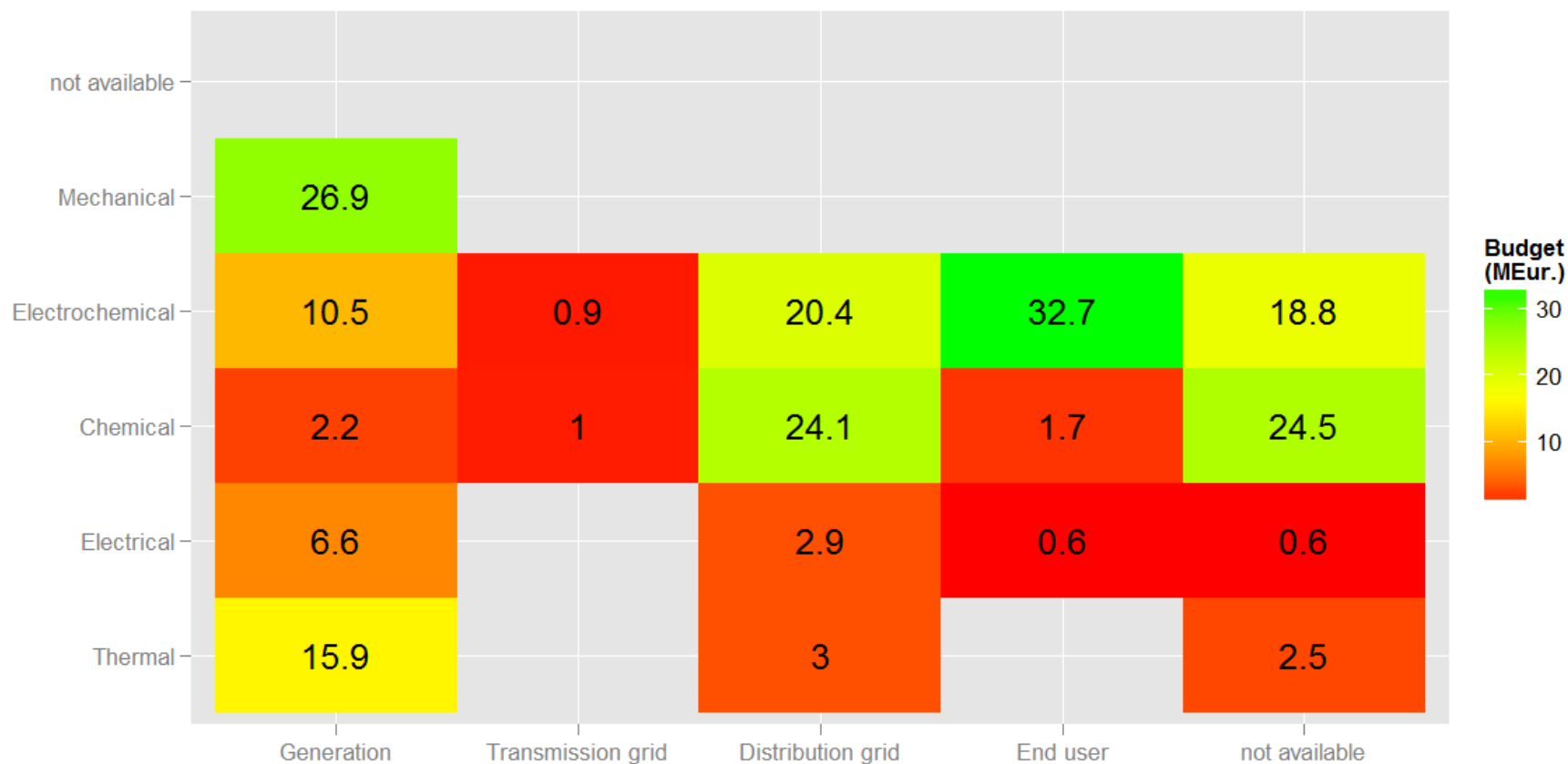
Overall mapping

Budget, national

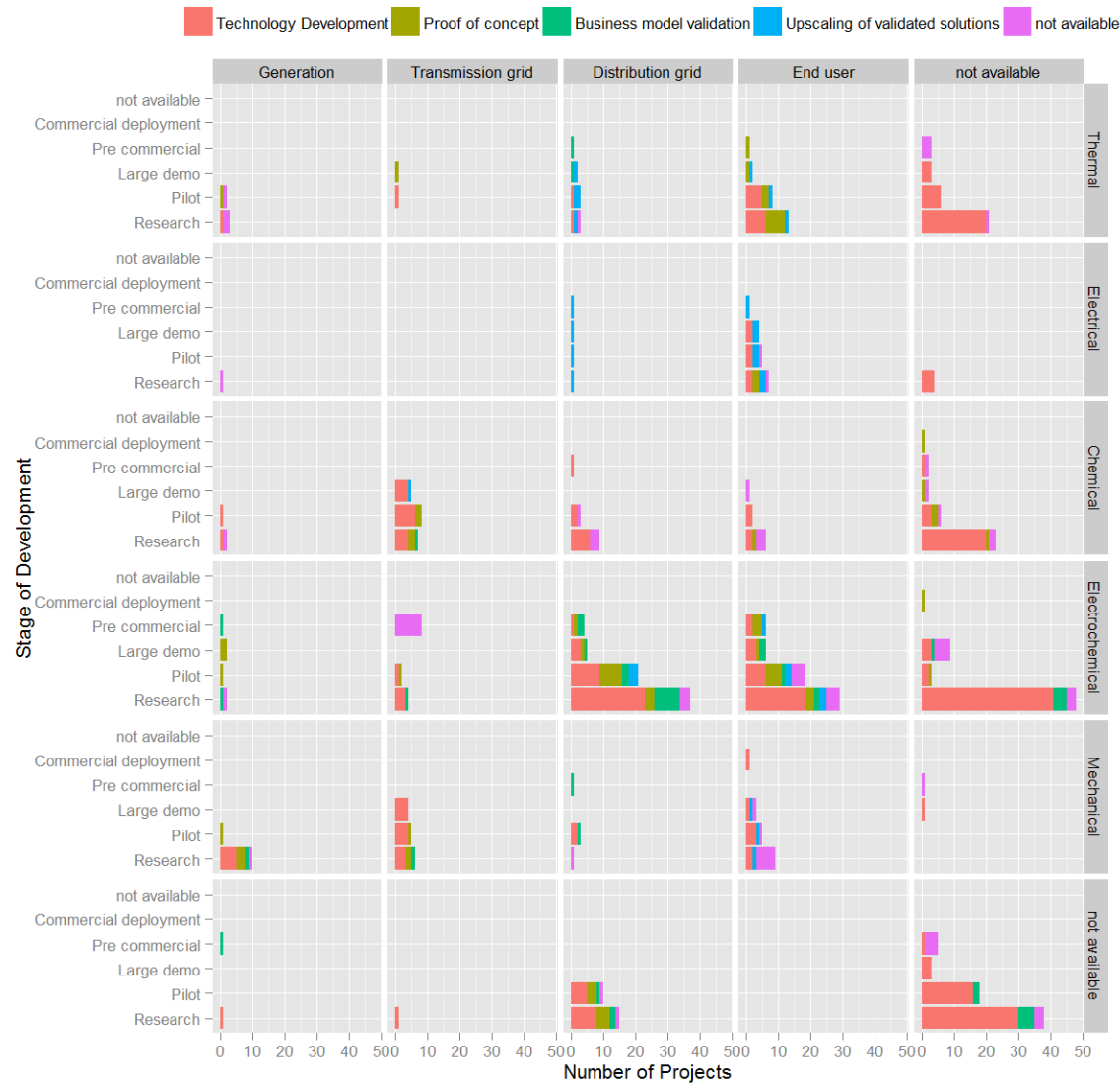


Overall mapping

Budget, EU



Overall mapping



Overall mapping

- Batteries, P2G and thermal storage
- Lots of R&D/early stage
- Expect next wave of pilots and scaling up
- Substantial, focused EU funding

Contact

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