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|  |  | **Barrier relevance to technology innovation deployment process** | | | | | | | |
|  |  | Initiation (pre-adoption) | | | | Implementation (post-adoption) | | | |
|  |  | Barrier | Cause | Effect | Source | Barrier | Cause | Effect | Source |
| **Owner of deployment barrier** | Individual | Alignment of goals:   * *Physicians do not want to adopt any technology that gets in the way of them making money (HITV1\_DI, Pos. 22-24)* * *Some providers want to do it their own way and do not care about adjusting and changing workflows (PV2\_CDE3\_DI, Pos. 28)  “’What do I care, you know, it’s like I’m focused on this X-ray, this bone this hammer, you know, don’t tell me that they’re allergic to the antibiotic I want to give them someone else will pick that up along the way’ [quote].”* * *Lack of personal incentive alignment (PV2\_CDE3\_DI, Pos. 32)* * *People running hospitals and payers, and physicians tend to be rugged individuals and pursue fierce levels of independence and individual authority, i.e., the do not want to be subordinate to anyone (neither within nor across the stakeholder group) (CS1\_DI, Pos. 77)* * *Physicians, be it the chief medical officer or grassroot level doctors push back furiously if control is wrested away from them by adoption of e.g., some technology (HITV1\_DI, Pos. 14) [in the individual category as it is about the physician’s character trait]* |  | * *People do not want to change their workflows (PV2\_CDE3\_DI Pos. 28)* * *[Success factor[Need to understand in what way everyone is incentivized]] (PV2\_CDE3\_DI, Pos. 32)* * *It is very difficult to make these people work together without a government mandate and enforcement (CS1\_DI, Pos. 77)* * *Chief medical officers and grassroot level doctors are extremely powerful within the system in terms of the people they interact with directly and in screaming, shouting, and adopting change (HITV1\_DI, Pos. 14)* | HITV1\_DI, Pos. 22-24  PV2\_CDE3\_DI, Pos. 28  PV2\_CDE3\_DI, Pos. 32  CS1\_DI, Pos. 77  HITV1\_DI, Pos. 14 | Alignment of goals:   * *Physicians do not want to adopt any technology that gets in the way of them making money (HITV1\_DI, Pos. 22-24)* * *Some providers want to do it their own way and do not care about adjusting and changing workflows (PV2\_CDE3\_DI, Pos. 28)  “’What do I care, you know, it’s like I’m focused on this X-ray, this bone this hammer, you know, don’t tell me that they’re allergic to the antibiotic I want to give them someone else will pick that up along the way’ [quote].”* * *Lack of personal incentive alignment (PV2\_CDE3\_DI, Pos. 32)* * *People running hospitals and payers, and physicians tend to be rugged individuals and pursue fierce levels of independence and individual authority, i.e., the do not want to be subordinate to anyone (neither within nor across the stakeholder group) (CS1\_DI, Pos. 77)* * *Physicians, be it the chief medical officer or grassroot level doctors push back furiously if control is wrested away from them by adoption of e.g., some technology (HITV1\_DI, Pos. 14) [in the individual category as it is about the physician’s character trait]* |  | * *People do not want to change their workflows (PV2\_CDE3\_DI Pos. 28)* * *[Success factor[Need to understand in what way everyone is incentivized]] (PV2\_CDE3\_DI, Pos. 32)* * *It is very difficult to make these people work together without a government mandate and enforcement (CS1\_DI, Pos. 77)* * *Chief medical officers and grassroot level doctors are extremely powerful within the system in terms of the people they interact with directly and in screaming, shouting, and adopting change (HITV1\_DI, Pos. 14)* | HITV1\_DI, Pos. 22-24  PV2\_CDE3\_DI, Pos. 28  PV2\_CDE3\_DI, Pos. 32  CS1\_DI, Pos. 77  HITV1\_DI, Pos. 14 |
| Organization |  |  |  |  | Alignment of goals:   * Health system employees’ salaries are pegged to how well the health system does overall (PV1\_DI, Pos. 16) * Health IT vendors are focused on making their systems the best [status] (CS2\_A2\_DI, Pos. 6) |  |  | PV1\_DI, Pos. 16  CS2\_A2\_DI, Pos. 6 |
| System | Alignment of goals:   * *Organizations want to keep data on business management (e.g., which parts of the business are more/less profitable) proprietary/non-transparent (PY1\_DI, Pos. 53; PV1\_DI,* *Pos. 10)* * *No collaboration between stakeholders (CDE1\_A1\_D, Pos. 56, CS2\_A2\_DI, Pos. 18)* * *All stakeholders have a different set of incentives (CS2\_A2\_DI, Pos. 8; M2\_DI, Pos. 49; PV2\_CDE3\_DI, Pos. 32)* * Deciding on the governance of decentralized technologies is difficult (PY2\_DI, Pos. 30) | * *Business management data is used for contract negotiation (PY1\_DI, Pos. 53)* * *For some stakeholders non-collaboration would mean interruption of business processes, while for others it is merely a compliance matter (ETC1\_DI, Pos. 26-28)* * *The US healthcare system is not state-run but by for-profit companies (despite the government having some control) (CS2\_A2\_DI, Pos. 8)* * Need to balance decentralization with making every stakeholder happy (PY2\_DI, Pos. 30) * *People are incented by profits/money making opportunity and status (M2\_DI, Pos. 49)* | * *Hampers the movement from fee-for-service to value-based care (CDE1\_A1\_D, Pos. 56)* * *There is no common motive to bring everyone together (CS2\_A2\_DI, Pos. 8)* * *[Success factor[Need to follow the dollar and really understand where you are taking value from/whom you are taking it from, and what backend incentive you are providing]] (M1\_DI, Pos. 26)* * *Everyone wants to design their own system (M2\_DI, Pos. 38)* | CDE1\_A1\_D, Pos. 56  ETC1\_DI, Pos. 26-28  CS2\_A2\_DI, Pos. 8  CS2\_A2\_DI, Pos. 18  PV1\_DI, Pos. 10  PY2\_DI, Pos. 30  M1\_DI, Pos. 26  M2\_DI, Pos. 38  M2\_DI, Pos. 49  PV2\_CDE3\_DI, Pos. 32 | Alignment of goals:   * *Organizations want to keep data on business management (e.g., which parts of the business are more/less profitable) proprietary/non-transparent (PY1\_DI, Pos. 53; PV1\_DI,* *Pos. 10)* * *No collaboration between stakeholders (CDE1\_A1\_D, Pos. 56, CS2\_A2\_DI, Pos. 18)* * *All stakeholders have a different set of incentives (CS2\_A2\_DI, Pos. 88; M2\_DI; PV2\_CDE3\_DI, Pos. 32)* * Health IT vendors are focused on getting everyone to use their platform [increase switching costs, have high market share] (CS2\_A2\_DI, Pos. 6; CDE2\_FA2\_DI, Pos. 16) * Hospital does not want to know whether tests have already been performed on a transferred patient (PV1\_DI, Pos. 2) * Stakeholders want to keep data control in house (M1\_DI, Pos. 12)  “One of the other big pharma companies’ chief data officers said, data is more valuable than oil. And we just don’t know what yet, and we don’t know how to value it [quote].” * VRS providers felt anxiety that the maintainers of the look-up directory could be compromised (ETC1\_DI, Pos. 14; ETC1\_DI, Pos. 34)  “And all it took was one of these other companies to say, ‘You know what? We’re gonna make our own lookup directory, and we’re going to sync it with [blockchain-powered network for the pharmaceutical industry]. But we’re not going to run everything through [blockchain-powered network for the pharmaceutical industry], because we don’t like that. You know it. We’re anxious about this as an [software company]-driven project.’ Because they felt like the rug could be pulled out from under them in any time [quote].”   “And again, it’s very much a protectionist model, it’s an ‘I-got-mine’ sort of model because they felt like [software company] was coming for their breakfast [quote].” | * *Business management data is used for contract negotiation (PY1\_DI, Pos. 53)* * *For some stakeholders non-collaboration would mean interruption of business processes, while for others it is merely a compliance matter (ETC1\_DI, Pos. 26-28)* * *The US healthcare system is not state-run but by for-profit companies (despite the government having some control) (CS2\_A2\_DI, Pos. 8)* * Loss in revenue (PV1\_DI, Pos. 2) [see Pr\_Fin] * There is some benefit of being the data holder or the master of all kind of things (it is a business policy thing) (CDE2\_FA2\_DI, Pos. 16) * *People are incented by profits/money making opportunity and status (M2\_DI, Pos. 49)* | * No flow of clinical data (CS2\_A2\_DI, Pos. 6; PY1\_DI, Pos. 53; M1\_DI, Pos. 12) * Fire walls are built (PY1\_DI, Pos. 53) * *Hampers the movement from fee-for-service to value-based care (CDE1\_A1\_D, Pos. 56)* * *There is no common motive to bring everyone together (CS2\_A2\_DI, Pos. 8)* * Lack of data timeliness (PY1\_DI, Pos. 45) [see Pr\_TechPerf] * *[Success factor[Need to follow the dollar and really understand where you are taking value from/whom you are taking it from, and what backend incentive you are providing]] (M1\_DI, Pos. 26)* * *Everyone wants to design their own system (M2\_DI, Pos. 38)* * Involved parties (VRS providers) fell back on the old-school relational model, with everyone building their own look-up directory and keeping it in synch via APIs [they wanted to go with the tried and tested] (ETC1\_DI, Pos. 14; ETC1\_DI, Pos. 34) [see Pr\_FacilCon] | PY1\_DI, Pos. 53  CDE1\_A1\_D, Pos. 56  ETC1\_DI, Pos. 26-28  CS2\_A2\_DI, Pos. 8  CS2\_A2\_DI, Pos. 18  CS2\_A2\_DI, Pos. 6  PV1\_DI, Pos. 2  PY1\_DI, Pos. 45  PV1\_DI, Pos. 10  M1\_DI, Pos. 12  M1\_DI, Pos. 26  M2\_DI, Pos. 38  M2\_DI, Pos. 49  CDE2\_FA2\_DI, Pos. 16  PV2\_CDE3\_DI, Pos. 32  ETC1\_DI, Pos. 14  ETC1\_DI, Pos. 34 |
| Alignment of practices:   * There were no standard code sets for describing diagnosis and procedures in the same way (CS1\_DI, Pos. 18/428-537) |  | Failure to achieve interoperability (CS1\_DI, Pos. 18/428-537) | CS1\_DI, Pos. 18/428-537  CDE1\_A1\_D, Pos. 56 |  |  |  |  |
| Cognitive alignment:   * *Semantic interoperability within and between systems i.e., “Do the processes above or the humans above semantically see the same thing?” (PYV1\_DI, Pos. 18, CS2\_A2\_DI, Pos. 26)* * *People believe in the world that they do (CDE2\_FA2\_DI, Pos. 58)* * Everyone loves testing technology infrastructure, but no one is willing to pay for that individually (FA1\_DI, Pos. 22) |  | * *Semantic interoperability requires much upfront work (right terminologies, ontology, definitions) (PYV1\_DI, Pos. 18)* * *This dissonance can be life impacting (PYV1\_DI, Pos. 24)* * Testing is a community benefit type thing by figuring out what is working and what is not to improve on it to then deploy and scale it in the industry (FA1\_DI, Pos. 22) | PYV1\_DI, Pos. 18  PYV1\_DI, Pos. 24  CS2\_A2\_DI, Pos. 26  CDE2\_FA2\_DI, Pos. 58  FA1\_DI, Pos. 22 | Cognitive alignment:   * *Semantic interoperability within and between systems i.e., “Do the processes above or the humans above semantically see the same thing?” (PYV1\_DI, Pos. 18, CS2\_A2\_DI, Pos. 26)* * Building an incentive model that ensures that it is sustainable and equitable for the stakeholders involved, i.e., identifying who is creating and consuming value from the network/paying in (PY2\_DI, Pos. 30; PY2\_DI, Pos. 34) * *People believe in the world that they do (CDE2\_FA2\_DI, Pos. 58)* | * Altruistic solutions do not work on the long term (PY2\_DI, Pos. 34) | *Semantic interoperability requires much upfront work (right terminologies, ontology, definitions) (PYV1\_DI, Pos. 18)*  *This dissonance can be life impacting (PYV1\_DI, Pos. 24)* | PYV1\_DI, Pos. 18  PYV1\_DI, Pos. 24  CS2\_A2\_DI, Pos. 26  PY2\_DI, Pos. 30  PY2\_DI, Pos. 34  CDE2\_FA2\_DI, Pos. 58 |
| Problems in governmental regulations:   * Lack of “must” statements, just “should” statements to get mandate-addressed stakeholders to adopt standardized, ubiquitous formats and standard code sets (CS1\_DI, Pos. 18/428-537)  “Okay, late 90s EDI, here it comes. The government gave us a format, it was the X12 4010 format. You had to use them you couldn’t change them. It was these code sets ICD-9s, CPTs, NDCs. You had to use those code sets. Payer IDs, NPIs [National Provider Identifier Standards] came later, but it was NIST. They should have done a NPIs from the beginning, but you have to use those code sets. You had the federal government mandating that at least for Medicare, half of everything you did, you had to use it. And then, if you didn’t, there was enforcement, the enforcement was, ‘We won’t pay your claim.’ And hospital loses half the revenue. That’s a pretty good stick, okay [quote]?” * *Stakeholders weigh up the cost of non-compliance with the cost of compliance and the cost of compliance is often larger than the cost of non-compliance (CS1\_DI, Pos. 18/428-537)  “A patient should know the price that a payer has contracted with the hospital and use that to decide which hospitals they gonna go to. Okay, well. So, the government put out a rule about that, and the industry sued. They said we can’t possibly do that. They went to court. The court said, ‘Congress has this authority because the President has his authority, dear hospitals, you have to publish it.’ So, about half the hospitals looked at what the fine was and said, ‘I’d rather pay the fine than publish the data.’ And you might think it’s as a systems person, you might think, ‘Well, they didn’t want to do all the hard work of gathering the data and normalizing and publishing.’ It wasn’t that at all. They already have that ability. It was that inside that data, where business secrets, in their case, business secrets of what doctors refer to me, what doctors do I refer to, and how much did I negotiate prices with the different payers. Those business secrets the hospitals believed were so important they’d rather be non-compliant, look bad in the newspaper, and get fined by the government than to comply with the rule [quote].”* * Repeated postponing of final sets of regulations coming into effect (ETC1\_DI, Pos. 50) * *HITECH Act (600-pages document) was supposed to get everybody to invest and build their IT infrastructure by providing financial incentives for those who achieved certain levels but still many people complained that it was not exhaustive enough and missed important issues (CS2\_A2\_DI, Pos. 8)* * *Lack of enforcement (CS2\_A2\_DI, Pos. 32; CS1\_DI, Pos. 61-63)* * *HIPAA is outdated (CS2\_A2\_DI, Pos. 34-36)* * *The mandates released do not address the misaligned incentives (PV1\_DI, Pos. 10-12; PV1\_DI, Pos. 28) [see Pr\_SystemChar]*  *“And so, like, for example, in terms of hospitals being transparent with the prices the government passed a law saying, ‘Hospitals need to be transparent with what your prices are.’ So, what did most hospitals do? They gave you an Excel sheet with all these numbers, and no one’s really able to interpret it. It’s very difficult to figure out what cost what, and so essentially, you know, a government passed a law, and we still don’t know what things cost at each hospital [quote].”* * *Government mandates come as an afterthought and are just added to the already established system (PV3\_ETC2\_DI)* * The government is always trying to catch up, i.e., it is not up to speed on technologies and science (M2\_DI, Pos. 32-42) * *The fact that certified health IT prescribes specific standards and innovation does not happen at the core of certified health IT makes it difficult to adopt and use innovations on the way (CDE2\_FA2\_DI, Pos. 53)* * *Special interest groups see their way as the one and only solution and promote it (CDE2\_FA2\_DI, Pos. 58)* * *They do not set forth one uniform standard of data exchange (PV2\_CDE3\_DI, Pos. 4; CS1\_DI, Pos. 36, 802-817)* * *Too much burden achieving a particular policy objective has shifted to one stakeholder group, e.g., the primary beneficiaries of the data or the data flows are not the ones that are involved in the upfront collection or one-sided financial investment required (FA1\_DI, Pos. 10; FA1\_DI, Pos. 22)* * *Changing the balance of the system without compensating the imbalance, e.g., in a fee-for-service world before some change a physician could simply order a test or scan charging the patient for that, even though the patient might have done the test / scan recently, with perfect interoperability the provider cannot do such a test / scan for 30 days and loses revenue, even though this outcome is much better for the HC system overall (FA1\_DI, Pos. 18-20)* * *The policy dilemma of directly regulating certain issues and requiring involved actors to meet respective milestones and engaging with the industry early on before any regulation to move them down a certain path (FA1\_DI, Pos. 24)* * *Difficulty to align the industry’s business interest with the policy interest (FA1\_DI, Pos. 26)* * *Trying to accommodate the needs of all stakeholders on the table (CS1\_DI, Pos. 36, 802-817)* * *They want to be evolutionary not revolutionary (CS1\_DI, Pos. 63)* | * *Perverse economic incentives e.g., stakeholders believe that in some data that is to be shared are business secrets (CS1\_DI, Pos. 18/428-537)* * *Providers, in particular the front office staff, see a risk of being sued for improperly sharing clinical data (CS2\_A2\_DI, Pos. 34) [see Pr\_RiskTrust]* * It is not-for-profit, i.e., has no money at stake (M2\_DI, Pos. 32-42) * *There are centralized data exchanges (also called query-based document exchange), which are the established form of data exchange in the industry, such as HIEs, HIOs, health data utility and federated data exchanges which is enabled by FHIR efforts (PV2\_CDE3\_DI, Pos. 4)* * *The first iteration of TEFCA does not involve FHIR (PV2\_CDE3\_DI, Pos. 48-51)* * *It is difficult to predict the proportion of free market capitalism, i.e., how the different market actors are going to engage in the market and finding the most efficient way to make money (FA1\_DI, Pos. 18-20)* * *It is hard to get people motivated to do something (e.g., testing) before it is regulated / mandated but when it is regulated without having engaged with the industry first federal agencies face a huge outcry of those parties stating that no one has tested it out yet (FA1\_DI, Pos. 24)* * *Only if the government issues a mandate the industry shuffles around the priority list (FA1\_DI, Pos. 26)* | * It takes a tremendous combination of happenstance for the industry to affect major change without a government mandate (CS1\_DI, Pos. 18/428-19) [see Pr\_SystemChar] * *Failure to achieve interoperability (CS1\_DI, Pos. 18/428-537)* * Solution rollout takes time (ETC1\_DI, Pos. 50) * *Organizations figure out what is the best situation for them and loopholes in government mandates (PV1\_DI, Pos. 28)* * Nobody trusts the government to do something proactively (M2\_DI, Pos. 32-42) * *No flow of clinical data (CDE2\_FA2\_DI, Pos. 53)* * *Specialist groups try to have an upper arm, particularly when it comes to regulation (CDE2\_FA2\_DI, Pos. 58)* * *It is inefficient to have two different architectures competing (PV2\_CDE3\_DI, Pos. 4)* * *[Success factor[All the ideas and efforts need to converge]] (PV2\_CDE3\_DI, Pos. 48-51)* * *Imbalanced benefits create the situation where not everyone is enthusiastic about pushing the use case forward / they feel disenfranchised about doing work where they see no added value for themselves and do not get paid for that appropriately (FA1\_DI, Pos. 10)* * *Policymakers need to come up with a corresponding incentive for them to feel that they are doing the right thing for healthcare (FA1\_DI, Pos. 18-20)* * *Need to work with the industry in advance providing a longer-term timeline of planned mandates (FA1\_DI, Pos. 26)* * *No enforcement of mandates such as requiring TEFCA-TEFCA exchanges happen. Using FHIR (CS1\_DI, Pos. 63)* | CS1\_DI, Pos. 18/428-537  CS1\_DI, Pos. 18/428-19  CS1\_DI, Pos. 18/428-537  ETC1\_DI, Pos. 50  CS2\_A2\_DI, Pos. 8  CS2\_A2\_DI, Pos. 32  CS2\_A2\_DI, Pos. 34-36  CS2\_A2\_DI, Pos. 34  PV1\_DI, Pos. 10-12; PV1\_DI, Pos. 28  PV3\_ETC2\_DI  M2\_DI, Pos. 32-42  CDE2\_FA2\_DI, Pos. 53  PV2\_CDE3\_DI, Pos. 4  PV2\_CDE3\_DI, Pos. 48-51  FA1\_DI, Pos. 10  FA1\_DI, Pos. 18-20  FA1\_DI, Pos. 24  FA1\_DI, Pos. 26  CS1\_DI, Pos. 36, 802-817  CS1\_DI, Pos. 61-63  CS1\_DI, Pos. 36, 802-817  CS1\_DI, Pos. 63 | Problems in governmental regulations:   * *Stakeholders weigh up the cost of non-compliance with the cost of compliance and the cost of compliance is often larger than the cost of non-compliance (CS1\_DI, Pos. 18/428-537)  “A patient should know the price that a payer has contracted with the hospital and use that to decide which hospitals they gonna go to. Okay, well. So, the government put out a rule about that, and the industry sued. 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They gave you an Excel sheet with all these numbers, and no one’s really able to interpret it. It’s very difficult to figure out what cost what, and so essentially, you know, a government passed a law, and we still don’t know what things cost at each hospital [quote].”* * *Government mandates come as an afterthought and are just added to the already established system (PV3\_ETC2\_DI)* * Everything is so heavily regulated down to the protocol, i.e., “Thou must do.” (CDE2\_FA2\_DI, Pos. 16) * *The fact that certified health IT prescribes specific standards and innovation does not happen at the core of certified health IT makes it difficult to adopt and use innovations on the way (CDE2\_FA2\_DI, Pos. 53)* * *Special interest groups see their way as the one and only solution and promote it (CDE2\_FA2\_DI, Pos. 58)* * *They do not set forth one uniform standard of data exchange (PV2\_CDE3\_DI, Pos. 4; CS1\_DI, Pos. 36, 802-817)* * *Too much burden achieving a particular policy objective has shifted to one stakeholder group, e.g., the primary beneficiaries of the data or the data flows are not the ones that are involved in the upfront collection or one-sided financial investment required (FA1\_DI, Pos. 10; FA1\_DI, Pos. 22)* * *Changing the balance of the system without compensating the imbalance, e.g., in a fee-for-service world before some change a physician could simply order a test or scan charging the patient for that, even though the patient might have done the test / scan recently, with perfect interoperability the provider cannot do such a test / scan for 30 days and loses revenue, even though this outcome is much better for the HC system overall (FA1\_DI, Pos. 18-20)* * *The policy dilemma of directly regulating certain issues and requiring involved actors to meet respective milestones and engaging with the industry early on before any regulation to move them down a certain path (FA1\_DI, Pos. 24)* * *Difficulty to align the industry’s business interest with the policy interest (FA1\_DI, Pos. 26)* * *Trying to accommodate the needs of all stakeholders on the table (CS1\_DI, Pos. 36, 802-817)* * *They want to be evolutionary not revolutionary (CS1\_DI, Pos. 63)* | * *Perverse economic incentives e.g., stakeholders believe that in some data that is to be shared are business secrets (CS1\_DI, Pos. 18/428-537)* * *Providers, in particular the front office staff, see a risk of being sued for improperly sharing clinical data (CS2\_A2\_DI, Pos. 34) [see Pr\_RiskTrust]* * *There are centralized data exchanges (also called query-based document exchange), which are the established form of data exchange in the industry, such as HIEs, HIOs, health data utility and federated data exchanges which is enabled by FHIR efforts (PV2\_CDE3\_DI, Pos. 4)* * *The first iteration of TEFCA does not involve FHIR (PV2\_CDE3\_DI, Pos. 48-51)* * *It is difficult to predict the proportion of free market capitalism, i.e., how the different market actors are going to engage in the market and finding the most efficient way to make money (FA1\_DI, Pos. 18-20)* * *It is hard to get people motivated to do something (e.g., testing) before it is regulated / mandated but when it is regulated without having engaged with the industry first federal agencies face a huge outcry of those parties stating that no one has tested it out yet (FA1\_DI, Pos. 24)* * *Only if the government issues a mandate the industry shuffles around the priority list (FA1\_DI, Pos. 26)* | * *Failure to achieve interoperability (CS1\_DI, Pos. 18/428-537)* * *Organizations figure out what is the best situation for them and loopholes in government mandates (PV1\_DI, Pos. 28) [see Pr\_SystemChar]* * People are worried about being compliant with regulations (CDE2\_FA2\_DI, Pos. 16) * *No flow of clinical data (CDE2\_FA2\_DI, Pos. 53)* * *Specialist groups try to have an upper arm, particularly when it comes to regulation (CDE2\_FA2\_DI, Pos. 58)* * *It is inefficient to have two different architectures competing (PV2\_CDE3\_DI, Pos. 4)* * *[Success factor[All the ideas and efforts need to converge]] (PV2\_CDE3\_DI, Pos. 48-51)* * *Imbalanced benefits create the situation where not everyone is enthusiastic about pushing the use case forward / they feel disenfranchised about doing work where they see no added value for themselves and do not get paid for that appropriately (FA1\_DI, Pos. 10)* * *Policymakers need to come up with a corresponding incentive for them to feel that they are doing the right thing for healthcare (FA1\_DI, Pos. 18-20)* * *Need to work with the industry in advance providing a longer-term timeline of planned mandates (FA1\_DI, Pos. 26)* * *No enforcement of mandates such as requiring TEFCA-TEFCA exchanges happen. 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